

# MODERN

# ml

# LITHOGRAPHY

AUGUST • 1941 • VOL. 9 • NO. 8

STANDARD PRODUCTS, INC.  
INTER-DEPARTMENTAL MEMO

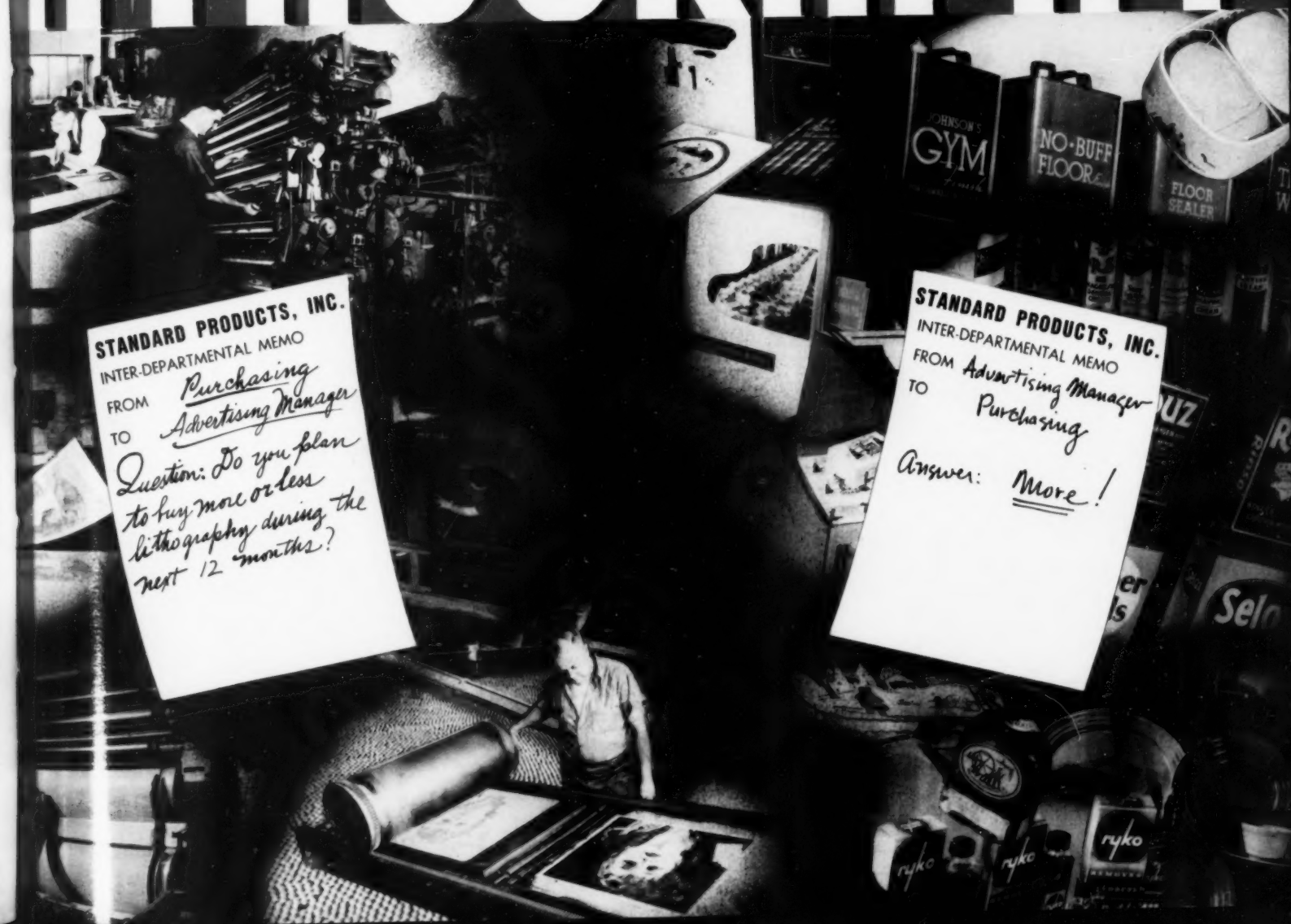
FROM *Purchasing*  
TO *Advertising Manager*

*Question: Do you plan  
to buy more or less  
lithography during the  
next 12 months?*

STANDARD PRODUCTS, INC.  
INTER-DEPARTMENTAL MEMO

FROM *Advertising Manager*  
TO *Purchasing*

*Answer: More!*



**Permanent Brilliant Green Toner 248P**

## **Senelith Inks**

were the first lithographic inks  
made from dyestuffs  
treated with sodium tungstate  
for better sunfastness  
and are still leading  
with their outstanding resistance properties

**The Senefelder Company, Inc.**

*"Everything for Lithography"*

**32-34 Greene Street**

**New York, N. Y.**

# FOR SATISFIED LEDGER FORM CUSTOMERS

**... Be sure the paper fits the job**

*Today you need more than one paper to give your customers the best results from their accounting and ledger forms. That's why Hammermill makes a ledger paper and a posting paper: two grades that provide the answer for any bookkeeping printing job.*



## HAMMERMILL LEDGER

When the requirements call for a paper with extra strength to withstand rough treatment—one with a surface that will take pen entries neatly, even over erasures—use Hammermill Ledger.

Loose leaf and bound ledgers, statements, briefs, reports are only a few of the uses this paper fills. It is outstanding for maps or charts that must be folded and refolded many times. Its glareless surface is easy on the eyes and is excellent for ruling. Both sides are alike for work-and-turn printing.

Your customers will accept Hammermill Ledger with confidence. And you can be sure of trouble-free press performance when you use it.

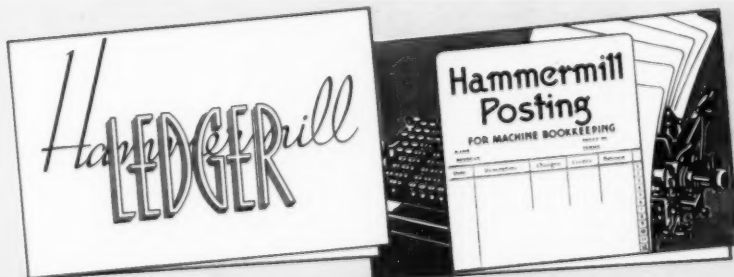
## Hammermill Posting

For machine posted statements, recommend a paper made especially for machine bookkeeping—Hammermill Posting. It has the proper "tooth" to feed smoothly, grip the machine rolls without slipping. It's sturdy—holds its snap and stiffness under hard use . . . stays easy to handle in tray and machine.

Your customers will like Hammermill Posting. It gives them fast work and neat work.

You will like Hammermill Posting because it is economical to print and because it, like Hammermill Ledger, helps you deliver the kind of work that pays two profits—one when you run the job . . . a second when your satisfied customer reorders.

NEW DEFENSE orders, new tax requirements, new Government regulations are creating a need for thousands of new accounting forms. Go after these profitable orders now. Offer your customers the right paper for each specific bookkeeping use—Hammermill Ledger and Hammermill Posting. To make your selling easier, carry with you complete sample books of both these papers. *Mail coupon for copies.*



ML-AU

Hammermill Paper Company, Erie, Pa.

Please send sample books of Hammermill Ledger and Hammermill Posting.

Name .....

Position .....

(Please attach to your business letterhead)



# SENEFELDER

## LITHOGRAPHIC SUPPLIES

*Everything to make the job easier* ~



Each month we will briefly describe an outstanding item in the Senefelder group of supplies for the lithographer.

### KALININ DRIER

Good bronze jobs have their ink and bronze powder adhere firmly and cleanly onto the paper. Ordinary paste or liquid driers generally used in lithographic inks are apt to cause crystallization in the ink and tackiness on the paper. Powdering the sheets, a makeshift remedy, is expensive in application and unsatisfactory in results. It impairs the brilliancy of the color and the life of the ink. Kalinin Drier, a new rapid paste drier, added in small doses to the ink overcomes all of these troubles.

Kalinin Drier is especially prepared for eliminating the detrimental effects of crystallization and tackiness in lithographic inks. It has exceptional drying properties; it remains neutral on stone, zinc or copper plates and does not change the consistency or the shade of the ink.

Kalinin forms a durable binder between paper, ink and bronze powder; it dries perfectly smooth without leaving any tack behind and makes possible the printing of heavy brilliant solids even on poorly sized papers without rubbing off. Kalinin eliminates the glare and disharmony of color on super coated papers and lends a tranquil appearance of water color to the ink. Kalinin rectifies the detrimental effects of crystallization in inks caused by certain base colors which do not penetrate sufficiently into the paper and which prevent subsequent colors from drying.

Kalinin eliminates the sticking together of sheets without powdering or slip sheeting; it does not stick to the rollers in spite of its rapid drying properties. Kalinin is economical and indispensable in lithographing. Kalinin is packed in one pound cans at 60 cents per lb.; larger cans are proportionally lower in price.

Directions for mixing the exact proportions of Kalinin Drier to the various kinds of ink for use on different kinds of paper and for various classes of work are contained in our booklet No. 99, which is forwarded with every shipment of Kalinin Drier.

## The Senefelder Company, Inc.

*"Everything for Lithography"*

**32-34 GREENE ST.**

**NEW YORK, N. Y.**

Absorbent Cotton  
Acids, Litho  
Acid Brushes  
Alum Powder  
Aluminum Plates  
Antifin Rubber  
Preserver  
Asphaltum Liquid  
Asphaltum Powder  
Berlin Paper  
Bronze Powders  
Bronzing Pads  
Carborundum Powder  
Caustic Soda  
Cellulose Cleaning  
Paper  
Charcoal Sticks  
Chemicals, Litho  
China Marbles  
Cold Top Enamel  
Collodion Emulsion  
Columbia Paper  
Copierlack  
Cornelin Solution  
Correction Slips  
Counter Etch  
"Convenient"  
Crayon Holders  
Crayon Ink

Crayon Pencils  
Crayon Transfer  
Paper  
Crayons, Litho  
Deep Etch Supplies  
Developing Ink  
Double Etch Salt  
Duralac Lacquer  
Egg Albumen  
Engrav. Needles  
Engrav. Stones  
Etches  
Excelsior Paper  
Felt Daubers  
Film Filters  
Flannel, Litho  
Flint, Graining  
Fly Cord

Fountain Etch  
French Chalk  
Gamburger Slips  
Gelatine Foils  
Glass Marbles  
Glycerine  
Graining Marbles  
Graining Quartz  
Gum Arabic  
Hand Rollers  
Hydroquinone  
Impression Rubber  
Sheeting  
India Paper  
Ink Mullers  
Ink Knives  
Ink Slabs  
Liquid Tusche

Litho Inks  
Litho Stones  
Lump Pumice  
Magnesia Carb.  
Maple Balls  
Mica Powder  
Moleskin  
Molleton  
Mutton Tallow  
Negative Brushes  
Negative Collodion  
Negative Glass  
Negative Varnish  
Neg-O-Lac  
Nitric Acid  
Offset Blankets  
Offset Inks  
Offset Powder

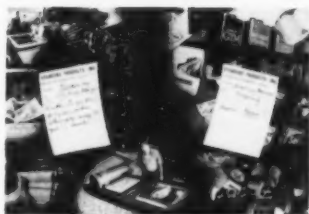
Opaque  
Palm Oil  
Pens, Litho  
pH Slide Comparators  
Photographic Gelatine  
Platium Etch Salt  
Plates, Lithographic  
Press Boards  
Printing Inks  
Process Glue  
Process Oil  
Proofing Inks  
Pumice Powder  
Quartz, Graining  
Rolling-up Ink  
Rosin Powder  
Rubber Snake Slips  
Rubbing Stones

Schumacher Slips  
Scotch Hone  
Scotch Slips  
Scotch Tape  
Scraper Leather  
Scraperwood  
Senebumen  
Senelac Varnish  
Sensitizers  
Sharp Etch  
Snake Slips  
Soapstone  
Sponges  
Steel Balls  
Steelclay Marbles  
Stone Cement  
Strecker Salt  
Sulphur Flour  
Tracing Blue  
Tracing Paper  
Transfer Ink  
Transfer Papers  
Transparency  
Solution  
Tusche  
Varnishes  
Wire Brushes  
Zinc Plates  
Etc., Etc.



# MODERN LITHOGRAPHY

PUBLISHED IN THE INTERESTS OF LITHOGRAPHERS EVERYWHERE



## THE COVER

For detailed results of a recent survey among fifty large buyers of lithography, see page 20.

August, 1941

Volume 9 No. 8

We hope advertisers have their way during the next twelve months and do buy more lithography. But even if they don't—as a result of the defense emergency—at least we can be assured that they will if they can. (Page 20)

When we first read Mr. Ludlam's article we were, to put it mildly, slowed down to a walk. It's not one of those things you can gallop through, skipping here and there. But once you get started it's really fascinating the way the subject unfolds. And we know a whale of a lot more than we did before—and that's something. See if you don't put his article down feeling just about the same way. (Page 23)

Funny how a chance remark dropped carelessly will take root sometimes and really sprout into a full-blown idea. Earle Higgins happened to be in the office one day carrying a couple of recipe books. They were lithographed, and beautiful jobs they were, too. Why don't lithographers turn out more of that type of work, he was asked. They would, came the answer, if they knew more about typography. That was the chance remark. If lithographers don't know as much as they should about typography why not tell them about their weakness, and why it would be to their advantage to overcome it? Well, why not? (Page 27)

Have you set aside the week-end of Sept. 18-20 for a trip to Cincinnati? It's not too early to start planning—or to register, for that matter. (Page 30)

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## MODERN LITHOGRAPHY

Reg. U. S. Pat. Office

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AUGUST 1941

5

Disintegration and swelling tests, some of which are shown in this picture, are being conducted constantly in the Vulcan Laboratory.



## ***Why Vulcan Offset Blankets are so free from swelling . . .***

Offset blankets of various makes, including our own, have been tested and re-tested in the Vulcan Laboratory for years, in a constant effort to solve certain pressroom problems—particularly the problem of swelling.

As a result, Vulcan blankets are 50% less subject to swelling than ordinary offset blankets.

Vulcan blankets are also free from embossing, debossing and stretching. They

have a smooth, fine-textured surface and a flexible, very durable body construction.

Write for more information about Vulcan Offset Blankets and Litholastic Inking Rollers; and please mention the type of offset presses you are using.

### **VULCAN PROOFING COMPANY**

First Avenue and Fifty-Eighth St., Brooklyn, N. Y.

•  
*Sales Representatives in Principal Cities*

# **VULCAN**

## **Offset Blankets and Inking Rollers**



Fox River gives you a Sales Plan that is new, exciting, and practical. Here is a fresh approach—something that will make customers and prospects alert—yes, alert to new and better letterheads. Because this Plan is basically sound it provides a happier opportunity for more profitable letterhead work.

The gist of "Light Up Your Letterhead" is contained in an elaborate book of the same name. This new technique of letterhead design, as explained in the book, tells your customers

how by the use of Light in a letterhead, they can advance themselves in the estimation of those who receive their letters. Use this fundamentally sound idea that is *right*. Your letterheads will be newly profitable.

"Light Up Your Letterhead" is *not* advertising. It is simply a means, offered you by a mill, to help you increase your letterhead business. It is a logical and helpful Sales Tool—one that you should see to understand what a help it is for users of Fox River Papers.

#### HIGHLIGHTS OF THE PLAN "Light Up Your Letterhead"

Dale Nichols, the noted painter-author wrote the text which explains directly and completely how to illuminate your letterhead.

Twenty different well-known designers produced the twenty demonstrations illustrating how to "light up your letterhead," all working under Mr. Nichol's direction.

Distribution is limited to users of Fox River papers, to protect loyal customers who are entitled to selling assistance.

#### FOR USERS OF FOX RIVER PAPERS ONLY

"Light Up Your Letterhead" is a campaign sponsored by Fox River Paper Corporation intended to help loyal users of Fox River Papers. Because it is published solely as a means of *working with* its customers, and is not a means of *working on* prospective customers, it will not be distributed freely to prospective-lithographer customers. Even though you may not be a consistent user of our papers, you will be interested in seeing this Sales Plan and what it can do for you. At your request we shall be glad to have it shown to you.

**FOX RIVER**



**PAPER CORPORATION**

APPLETON  
WISCONSIN

COTTON-FIBRE CONTENT  
BUSINESS PAPERS

AUGUST 1941

*Masterline* PAPERS





Into every negative enters

**C O P Y**

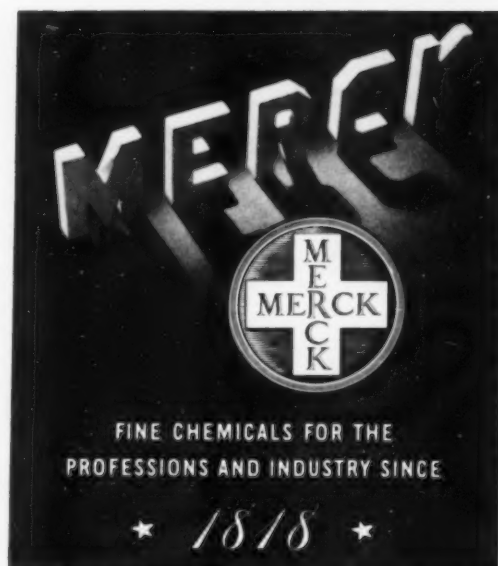
**CRAFTSMANSHIP**

**CHEMICALS**



To produce a finished negative of the better type, you need better copy, better craftsmanship and better chemicals.

Merck chemicals for the graphic arts are *better* chemicals—the kind that go a long way toward producing *better* results.



**MERCK & CO. Inc.** *Manufacturing Chemists* **RAHWAY, N. J.**

New York: 161 Sixth Ave., Philadelphia: 1649 N. Broad St., St. Louis: 4528 S. B'way. In Canada: Merck & Co. Ltd., Montreal and Toronto

IN YOUR LONG  
EXPERIENCE, Mr.  
FOREMAN, WHAT INK  
PERFORMS BEST?

Let's settle on  
ACE OFFSET  
BLACK for  
all our jobs.

I'VE TRIED  
THEM ALL...  
ACE BLACK  
IS THE BEST!

...and they have a  
branch near here!

Why not buy all  
our litho supplies  
from S&V?

# The Answer... Ace OFFSET BLACK

Why don't you, too, settle on ACE OFFSET BLACK?

Its qualities of performance are well known to pressmen everywhere. It increases production in the pressroom and is the positive answer to the demand for dense solids and clean halftones. Our continuous research and development of new products are available to you . . . in a plant near your own place of business.



Let us provide the answer to your production problems.



# Sinclair and Valentine Co.

MAIN OFFICE AND FACTORY: 611 WEST 129th STREET, NEW YORK, N. Y.

Albany	Boston	Cleveland	Detroit	Jacksonville	Los Angeles	Nashville	Philadelphia
Baltimore	Charlotte	Dallas	Havana	Kansas City	Manila	New Haven	San Francisco
Birmingham	Chicago	Dayton			Miami	New Orleans	Seattle



### *THIS TIME, A HOTEL TIPS YOU!*

And it's a tip worth taking. If you are planning to attend the Cincinnati Convention of the National Association of Photo-Lithographers on September 18, 19 and 20th, better make your reservations now. We have 800 outside rooms, all with tub, shower and radio, and we'd like to hold one for you. But we can't unless you let us know!

## **Netherland Plaza**

**CINCINNATI'S CONVENTION HEADQUARTERS**

MAX SCHULMAN, GENERAL MANAGER



# SPEED

The tempo of production has quickened. Faster and faster is the cry. Streamlined, high speed presses, improved paper, ink and supplies accelerate delivery. Time does not permit experimentation or delay . . . therefore F. & L. inks which set the pace through advanced research and practical application.



MARINE BLUE



OCEAN GREEN



THE FUCHS & LANG MFG. COMPANY

DIVISION • GENERAL PRINTING INK CORPORATION

100 SIXTH AVENUE • NEW YORK

BOSTON • CHICAGO • CINCINNATI • CLEVELAND • PHILADELPHIA • ST. LOUIS • SAN FRANCISCO

FORT WORTH • LOS ANGELES • TORONTO, CANADA



## *Keeping faith...*

A dual responsibility rests upon our shoulders. The first, to the founders of our organization who set the policy back in '70; and the second, to the lithographers with whom we do business. The Messrs. Fuchs & Lang left us with a heritage which we consider the most important reason for the preeminent position we enjoy today . . . that of "faithfully adhering to what was expected of us."

The lithographer expects us to give him not only the utmost in ink value from the viewpoint of superlative reproductive results and practical application, but also to contribute the findings of our constant laboratory research in the form of future ink improvements. There you have our credo — our trust — our ideal. Every effort will be made to maintain that faith.

*The Fuchs & Lang Mfg. Company*

(ESTABLISHED 1870)

DIVISION • GENERAL PRINTING INK CORPORATION

**100 SIXTH AVENUE • NEW YORK**

BOSTON CHICAGO CINCINNATI CLEVELAND PHILADELPHIA ST. LOUIS  
SAN FRANCISCO FORT WORTH LOS ANGELES TORONTO, CANADA



# LITHO-PRINT SAMSON OFFSET ROLLERS

With **Samson** (Vulcanized Oil) and **Litho-Print** (Rubber) Offset Rollers, **Bingham** co-operates with American printers in producing offset printing of outstanding quality at minimum cost.

The new, improved **Samson**, rapidly becoming famous among fine-quality offset printers, has as its most noteworthy feature the smoothest, yet toughest surface available in Vulcanized Oil rollers; its performance has set new standards in the offset world.

**Litho-Print**, **Bingham's** modern rubber roller for offset work, supreme in the field, combines perfection in ink distribution with the durability and long life inherent in rubber materials.

And — the sixteen modern **Bingham** plants, strategically located, insure maximum convenience and economy for our customers. Our nearest representative, backed by **Bingham's** 94 years of roller-making experience, will be glad to assist you with your offset roller problems.

## CHICAGO

ATLANTA	KALAMAZOO
CLEVELAND	KANSAS CITY
DALLAS	MINNEAPOLIS
DES MOINES	NASHVILLE
DETROIT	OKLAHOMA CITY
HOUSTON	PITTSBURGH
INDIANAPOLIS	ST. LOUIS
	SPRINGFIELD, OHIO

## ALSO DISTRIBUTED BY

CALIFORNIA INK CO. . . . .	San Francisco
DRY CLIMATE INK & ROLLER CO. . . . .	Denver
McKINLEY LITHO SUPPLY CO. . . . .	Cincinnati
HARRIGAN ROLLER CO. . . . .	Baltimore
DORSEY PRINTERS SUPPLY CO. . . . .	Memphis
GODFREY ROLLER CO. . . . .	Philadelphia

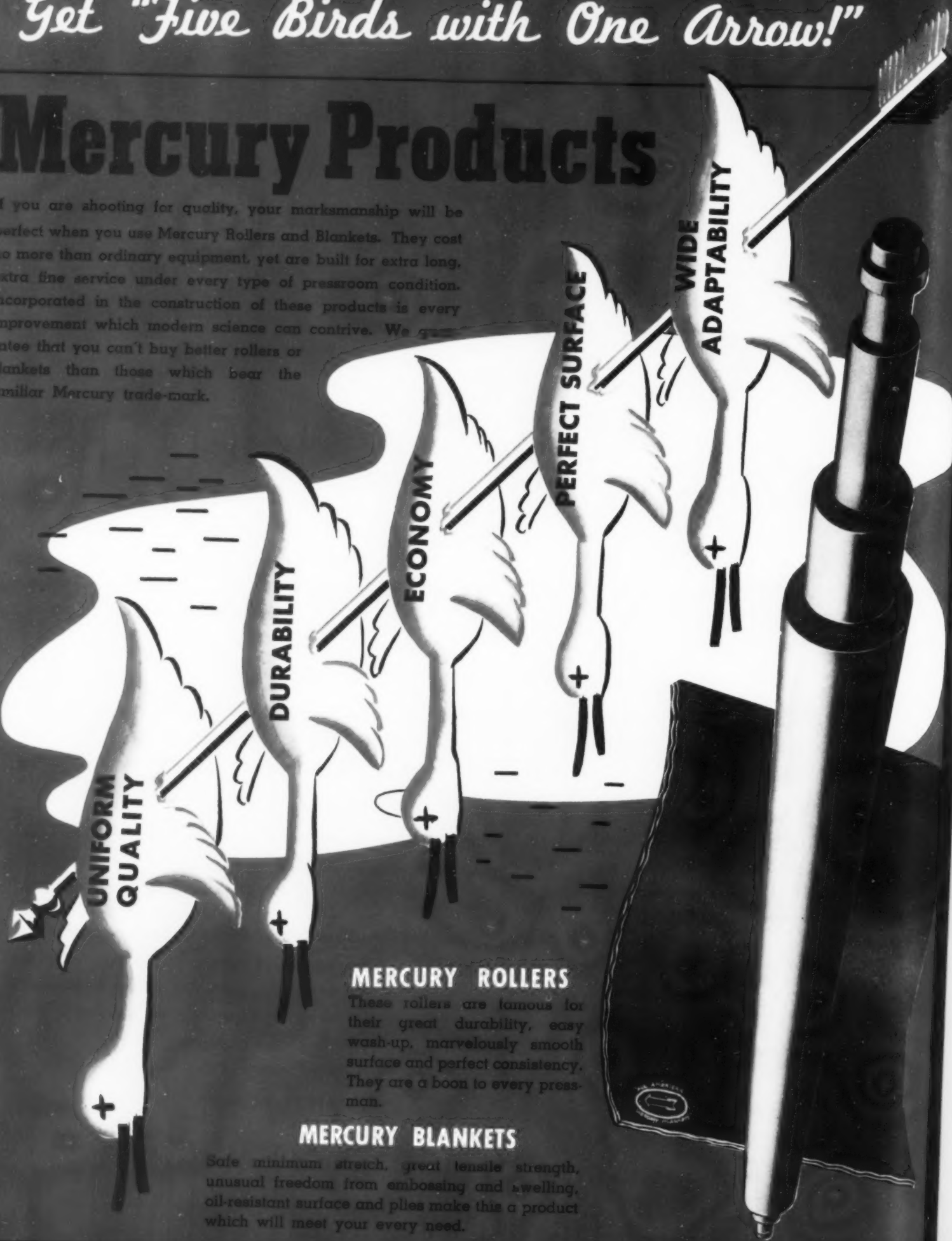
# SAM'L BINGHAM'S SON MFG. CO.



Get "Five Birds with One Arrow!"

# Mercury Products

If you are shooting for quality, your marksmanship will be perfect when you use Mercury Rollers and Blankets. They cost no more than ordinary equipment, yet are built for extra long, extra fine service under every type of pressroom condition. Incorporated in the construction of these products is every improvement which modern science can contrive. We guarantee that you can't buy better rollers or blankets than those which bear the familiar Mercury trade-mark.



## MERCURY ROLLERS

These rollers are famous for their great durability, easy wash-up, marvelously smooth surface and perfect consistency. They are a boon to every pressman.

## MERCURY BLANKETS

Safe minimum stretch, great tensile strength, unusual freedom from embossing and swelling, oil-resistant surface and piles make this a product which will meet your every need.

D. M. Rapport  
President

**RAPID ROLLER CO.**

Federal at 26th  
Chicago, Illinois



## "It's a way some people has of pretendin', Sonny . . .

"Right now we're pretendin' that these worms are just as good for bait as the minnows we ain't got. It's the same way about a lot of other things. Generally, when all a feller has to sell is a price, he always says that his stuff is 'as good as' something else that costs maybe a little bit more. Of course these fish are smart. They ain't having any of our worms because they know that they can get the minnows they want and the price won't be any higher."

Pitman feels the same way about Chemicals. The best chemicals are none too good for photo-offset work. Quality is built into Pitman Products through careful research and control. As a result, lithographers everywhere recognize the Pitman label as their assurance that the contents of the package are right. *Specify "Pitman Chemicals" and get the best!*

# HAROLD M. PITMAN CO.

LITHOGRAPHIC EQUIPMENT AND SUPPLY DIVISION

JERSEY CITY, NEW JERSEY—150 Bay Street

51st Ave. and 33rd St.—CHICAGO, ILLINOIS

Pacific Coast Representative . . . G. GENNERT, 1153 Wall St., Los Angeles, Cal.  
Canadian Representative . . . LATIMER, Ltd., 90 Niagara St., Toronto, Canada

# NINTH ANNUAL N. A. P. L.

# CONVENTION

netherlands plaza hotel • cincinnati, ohio • september 18, 19, 20

## TO LITHOGRAPHERS EVERYWHERE!

Dear Mr. Lithographer:

The next twelve months will be marked by the heaviest taxation in our nation's history, rising prices, curtailment of civilian production, scarcity of materials, a steadily mounting cost of living and governmental controls of various kinds including standardization of consumer goods in the interests of the national defense effort.

In all of this your vital interests will be affected. In all of this your industry, the lithographic, along with all business and all industry will face the grim reality of guns versus butter.

Has there ever been a time when it has been more important for us all to get together and discuss our common problems?

If ever there was a time for intelligent, cooperative planning to cope with the problems that are sure to touch us all in the months ahead that time is *now*!

The National Association of Photo-Lithographers has dedicated its forthcoming Ninth Annual Convention, to be held at the Netherlands Plaza Hotel, Cincinnati, September 18, 19 and 20 to the task of coming to grips with those vital problems in a vital way—to discuss them one by one and bring to bear on their solution, *in advance*, concerted, group, creative planning.

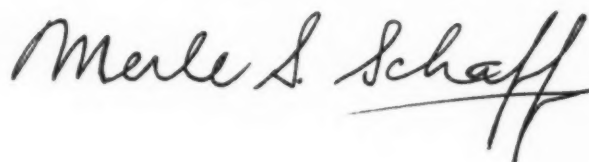
You are invited to participate in this united, all-out effort to shape, in so far as is humanly possible, the future of our industry.

You are cordially invited to attend the Ninth Annual Convention of the National Association of Photo-Lithographers and bring with you your problems and the force of your constructive criticism and experience. You will be in good company. The best minds of our industry, including a panel of experts in the technique of lithographic production assembled from all over the country, will be on hand. Every phase of selling, production and management will be discussed. The leading lithographic equipment and supply manufacturers will exhibit their latest developments.

*You owe it to your own best interests to attend!* So set the week-end of September 18th to 20th aside now. Bring your problems to Cincinnati in September!

You're invited whether you're a member of the NAPL or not!

Cordially yours,  
NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS



President.

P. S.—Advance registration fee is \$5.00, which includes the annual banquet and all of the sessions. Registration at the Convention, including all sessions and banquet, is \$7.50. Why not take advantage of this saving and send your reservation in today?



# MODERN LITHOGRAPHY'S

*You can't miss  
in this issue!*

Your advertisement in the N. A. P. L. September Convention Issue of MODERN LITHOGRAPHY offers you greater sales opportunities because . . .

**N. A. P. L. CONVENTION ISSUE**

MODERN LITHOGRAPHY has 100% circulation coverage among N. A. P. L. members . . .

MODERN LITHOGRAPHY, as official journal of the N. A. P. L., is the preferred source of buying ideas for N. A. P. L.'s growing membership . . .

MODERN LITHOGRAPHY offers a needed reader service to the newer and consequently the most rapidly expanding firms in the industry . . .

MODERN LITHOGRAPHY'S N. A. P. L. September Convention Issue offers increased and concentrated coverage through distribution of extra copies at the Convention . . .

MODERN LITHOGRAPHY'S N. A. P. L. September Convention Issue is the biggest and most widely-read issue of the year . . .

MODERN LITHOGRAPHY'S N. A. P. L. September Convention Issue affords one-time advertisers concentrated advertising coverage . . .

MODERN LITHOGRAPHY'S N. A. P. L. September Convention Issue offers a plus medium at the start of the heaviest buying season . . .

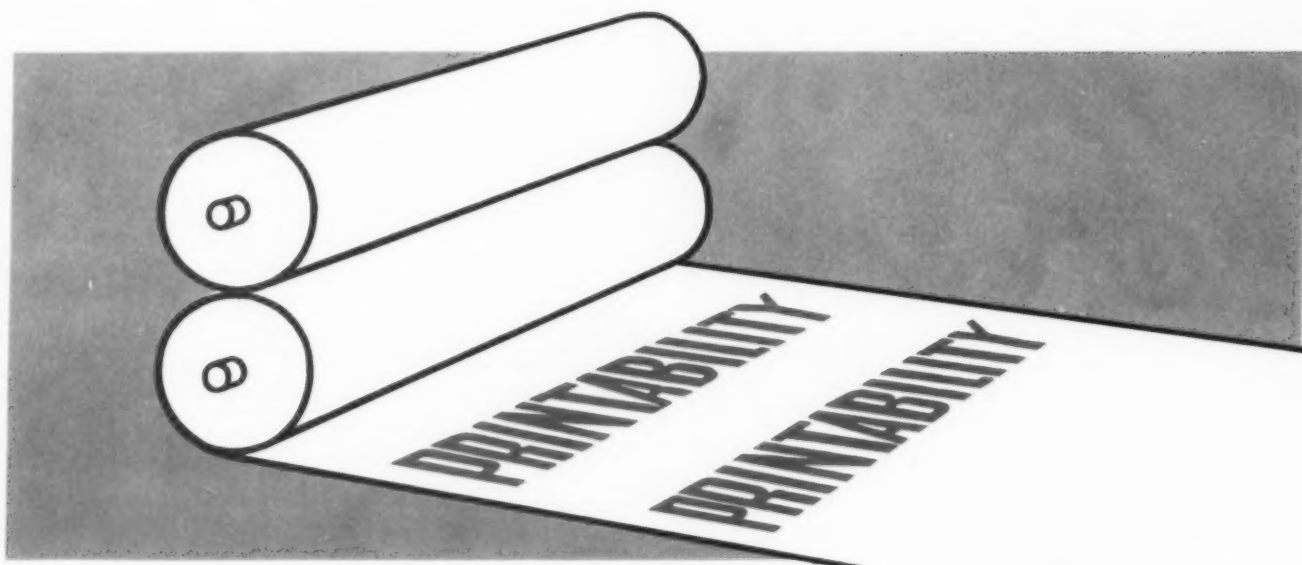
MODERN LITHOGRAPHY each month reaches key men in the plant as well as plant owners . . .

Advertising forms for September  
close August 20th.

**MAKE YOUR RESERVATIONS FOR SPACE NOW . . . BY MAIL OR WIRE—COLLECT**

Address MODERN LITHOGRAPHY, 254 West 31st Street, New York, N. Y.

Western Office: Thomas Morgan, 168 N. Michigan Ave., Chicago, Ill.



## *Did you know?...*

The word *printability* was coined years ago by the Neenah Paper Company. That was no accident. We HAD to have a word to describe the characteristics we had built into NEENAH papers—the result of years of printing research.

Today more than ever you can depend on NEENAH papers to do a *better* job in the pressroom. You will get faster production on the presses and less consumption of ink. Add to that the great consumer acceptance and you have an unbeatable combination.

Papers of the same grade are *not* the same in performance. Try a NEENAH paper and learn what "printability" REALLY means.

NEENAH PAPER COMPANY



NEENAH,

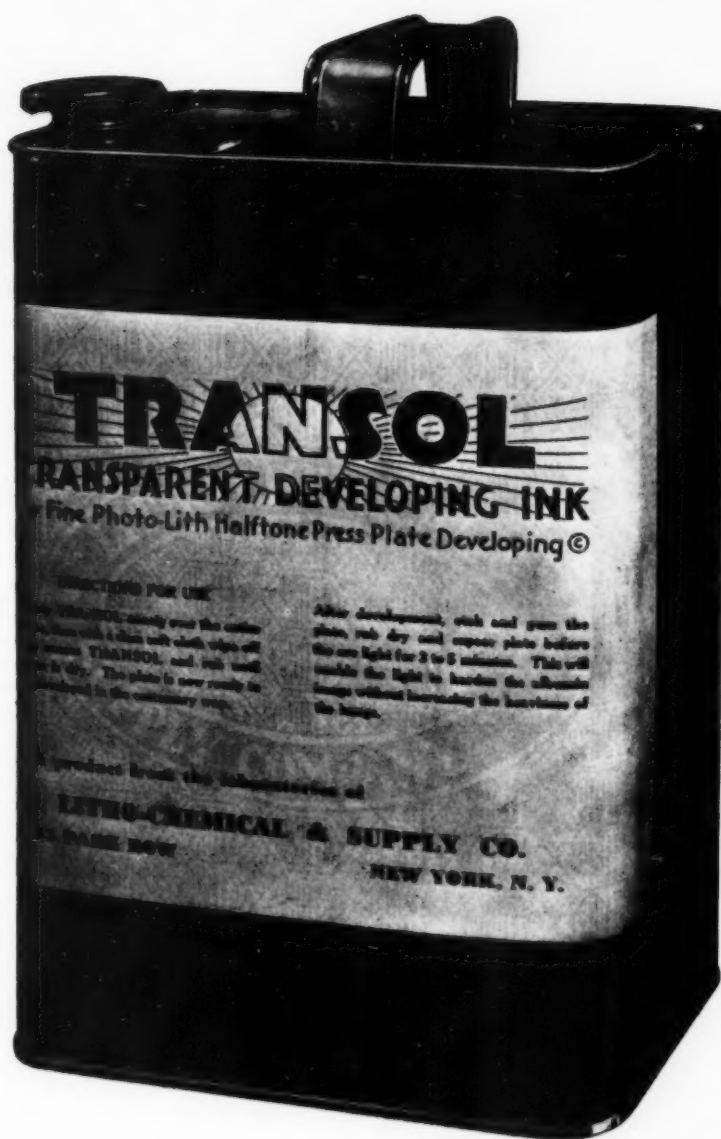
WISCONSIN

*Manufacturers of Fine Rag Content Bonds, Ledgers, Index and Lightweights*

*The use of*

# **TRANSOL DEVELOPING INK**

*Insures Long-run Halftone Plates*



**T**RANSOL is used in the same manner as black developing ink, but being TRANSPARENT the completed plate can be given a hardening exposure. The light penetrates the film of TRANSOL, thus light-hardening the image—thereby add-

ing many impressions to the life of the plate. TRANSOL is not new, having reached its tenth year of preference among many of the "Big Name" Lithographers of the United States and Canada.

Sold by all our Dealers

---

**LITHO CHEMICAL & SUPPLY CO.** 63 PARK ROW  
NEW YORK, N. Y.





## ★ WEDGWOOD OFFSET ★

Highest quality, an extensive line, and finer results, for years have maintained Champion as the largest maker of offset papers. Along this endless paper thoroughfare moves the advertising of the best merchandise America has to sell, and this parade succeeds in selling the whole show, from hats to hatchets, shoes to sugar, cornets to corsets. Whether customers need coated or uncoated offset, wove or special finishes, white or colors, they gain better places in the parade, and you get more business, when you use Champion Wedgwood Offset.



**THE CHAMPION PAPER AND FIBRE CO., Hamilton, Ohio**

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# EDITORIALS

**A**S we go to press we learn that an Advisory Committee has been appointed from representatives of the various branches of the graphic arts to work with OPM officials on the problem arising out of the shortage of chlorine for use in the manufacture of paper for commercial printing and publishing. We don't know what the functions of the committee will be or how it will be allowed to work with OPM—we understand the latter is strictly in the driver's seat and no "ifs" about it—but we are particularly heartened by the news that the lithographic industry is represented and, believe it or not, by real, honest-to-gosh lithographers, two in fact. We've heard enough about the feverish doings at Washington these days, the wire-pulling and strong-arm political bludgeoning used by some factions to muscle in and grab control of everything in sight, to be convinced that by getting themselves appointed to the Advisory Committee on Pulp and Paper the representatives of the lithographic industry have delivered a master-stroke. We tremble to think what could happen if the industry were left out in the cold in such a matter. But now that the impossible has been accomplished it would be next thing to suicide if the lithographic industry failed to pull together on the vital decisions immediately ahead. A major success has been scored. Let's not let it go up in smoke by failing to work together. This is a time for an all-out, united effort. Let dissenting minorities, split factions and isolated groups put aside their differences and selfish interests and pull together as one.



**W**ASHINGTON called attention last month to the urgent need of "standardization" in the manufacture of consumer goods if maximum results are to be achieved in the defense effort. Already industrial committees are being formed to see if substitution, conservation and simplification

cannot be achieved in the manufacture of a number of products. An eventual step might be a "standardization" program on paper requirements for printing and publishing. The result would probably be restrictions or rationing of some types of paper for lithography. We don't expect that the lithographic industry's needs will not be considered fairly or that a "standardization" program will be adopted which is contrary to the best interests of any one group. But we do hope that when the question of duplication comes up, that is, where a paper for example is being manufactured for book production by offset and a paper is also being manufactured for book production by letterpress, that the relative costs of the two methods of producing the book, and the effect of the elimination of the one or the other paper on the total income of the industry using it will be taken into account—as well as the comparative costs and production efforts engaged in the manufacture of the papers.



**A**LSO, while the subject is fresh in our mind, if the "standardization" program mentioned above goes so far as to reduce the number of graphic arts products manufactured—and that is not improbable, especially where two branches such as the letterpress industry and the lithographic industry manufacture similar products, as, say, direct mail—and one branch is expected to reduce its volume of manufacture, what is supposed to happen to its prices? If, for the sake of argument, the lithographer is called on to reduce his volume of direct mail production, will he not be entitled, providing his wages remain the same, to higher prices? With a decreased production he can, by laying off help, reduce his wage costs some, but not enough to maintain his present profit spread. It's something to be thinking about.



## ADVERTISERS TO USE MORE

**W**ITH the increasing emphasis on defense and the gradual weaning of business men away from the idea of "business as usual," with the discarding of the notion that you can have both guns and butter in the present unlimited emergency, what will happen to lithography? Will buyers curtail their needs for the lithographed product during the coming year? Aware that for most of U. S. industry and business, the fiscal year ends with June 30, MODERN LITHOGRAPHY selected fifty of the largest national advertisers in the country last month and put the question to them:

During the coming year, that is, beginning July 1, 1941 and ending

June 30, 1942, do you think you will buy more or less lithography?

The answer was: More.

To be exact, forty-one said they were going to buy more; two said their purchases would be the same; two said they would buy less; and five refused to say.

Accepting the estimate of \$200,000,000 as the annual value of products produced by the lithographic industry, the purchases of the 50 companies questioned represent over one-tenth of all the lithography bought. Thus, if the buyers of over one-tenth of all the lithography bought in a year say that during the coming twelve months they are planning to increase their purchases, that is significant.

Providing the materials shortage situation does not become too acute, the industry faces a good year.

Based on the results of the survey of the fifty buyers of lithography above, what specific lithographed products will be bought in increasing quantities during the coming year? Here, in the order of their importance, are the products which the fifty companies used last year and expect to use in increasing quantities during the next twelve months:

*Posters*  
*Displays*  
*Direct Mail*  
*Booklets*  
*Recipes*  
*Labels*  
*Maps*

MODERN LITHOGRAPHY



*Calendars*  
*Business Stationery*  
*Cans*  
*Cartons*  
*Decals*  
*Charts*  
*Blotters*  
*Catalogs*  
*Checks*  
*House Organs*  
*Menus*

It was difficult to break down the lithographed products listed above into percentages of the total lithography bought by all of the companies, but out of the fifty about thirty, or 60 per cent, spend almost 80 per cent of their total purchases for posters and displays. However, in quite a few instances the amounts spent for direct mail exceed the amounts spent for posters and displays. The best general conclusion that can be formed from the returns is that about 65 per cent of the money spent by all fifty of the companies will be concentrated on the first seven products listed above.

While the principal reason for the survey was to find out whether or not buyers expect to spend more or less

that the efforts of some members of the industry to interest the buyer in quality have not borne fruit. That doesn't mean these efforts have not done a lot of good: they are simply not discernible, that's all; the buyer is still interested primarily in price. Perhaps this is an indication that the lithographer needs to adopt a more realistic approach to the sales problem than he has in the past. A handsome, deluxe brochure produced at great expense and used as a promotion piece may be "a thing of beauty and a joy forever," but it is

boiled lithographic salesman that "the buyer is interested *only* in low price and fast delivery" is in need of revision, and that it should be: "The buyer is interested in low price and good quality," in the order named. We might further conclude, contrary to the thought expressed in the preceding paragraph, that the efforts of some lithographers to educate the buyer to appreciate quality *have* borne fruit and are discernible in this survey. However, since samples of lithography purchased by these buyers as "good"

## Survey of fifty leading buyers reveals that over 80 per cent plan to increase expenditures for fiscal year which began July 1

# LITHOGRAPHY IN 1941-42

during the present fiscal year, a number of other questions were asked the answers to which are highly interesting.

Replies to the question, "Why do you use lithography?" were, in the majority of cases, "because it's cheaper." The next largest percentage of replies gave as the reason, "because it gives the effect we wish." A third reason, which was given in the fewest number of cases, was "because it's faster."

The reason, "because it's cheaper," should certainly bear out the truth of the statement, always a subject for violent controversy among litho salesmen and craftsmen, that the majority of buyers are interested in the lowest price. It would also seem from this

a question whether or not it induces the buyer to use more lithography.

However, the answers to the next question asked the fifty buyers, which was "What do you think of the quality of most of the lithography you buy?", would seem to indicate that lithographers *have* hit on a formula for combining quality with price. All fifty were practically unanimous in declaring that the quality of most of the lithography they bought was "good." A few pointed out that it would necessarily follow that most of the lithography they bought was good because, in the words of one buyer, "We don't buy it unless it is good."

From this we might conclude that the oft-repeated truism of the hard-

are not available and since they have not defined "good" in comparative terms with the products of any other process, we are without a basis for judging. Suffice it to say that the buyer is not interested in quality alone or in price alone, but in the combination of the two, and that, generally speaking, "good" lithography to him means that which will best serve the purpose for which it is intended, at the cheapest price.

**H**OWEVER, because most of the buyers are of the opinion that "most of the lithography" they buy is "good" does not mean that it is good enough and can't be improved upon. This was brought out in the answers to another question in the



survey which asked: "What are some of the things about lithography which you think the industry should improve on?" Over 80 per cent replied: "Quality of reproduction." Other matters which the industry should make an attempt to improve according to the survey were, in order of importance: Method of Making Sales; Type of Salesmen; Faster Delivery; More Accurate Estimates; High Prices; Price Cutting; Elimination of Over-runs and Under-runs.

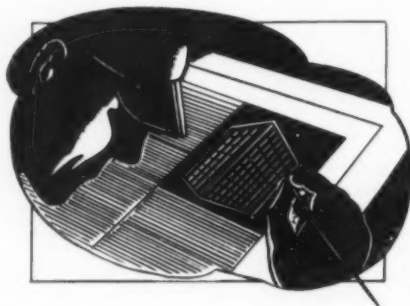
The view that most of the lithography bought is "good," but that the first and most important thing the industry should attempt to improve on is quality of reproduction calls for some comment. Following the receipt of the survey, personal interviews were held with many of those who answered the questionnaire. In the opinion of most of the buyers, the number of lithographers who are producing what they consider "good" lithography is mighty small. In addition, even these few are not able to turn out consistently good lithography, with the result that there is much waste motion due to rejects, conferences with sales representatives about quality and so on. With letterpress work, according to the buyers, quality is nearly always certain. The buyer okays the rough job and can dismiss it from his mind and be reasonably certain that he will get on the finished job just about what he ordered. But with lithography, he says, he is never sure. Consequently, in order to win the confidence of the buyer, the industry should improve on the quality of reproduction and be certain of consistent results, they say.

The next important thing which the buyer thinks the industry should improve on, Method of Making Sales, involves two other questions asked in the survey and will be commented upon in the answers to those two questions. The first of these two questions was: "What do you think of the lithographic salesman?" About 75 per cent of the replies were divided equally into the belief that he was (1) aggressive, that he was (2) a pest.

In talking over the results of the

survey with the sales promotion manager of a large New York lithographic house, he remarked with a grin that for a salesman to be called a pest by a buyer was a high compliment to that salesman's aggressiveness, and that, actually, being a pest and being aggressive were one and the same thing. We were inclined to agree. However, sensing that in the mind of the buyer "aggressiveness" was associated with positive qualities of salesmanship and "peskiness" with negative qualities of salesmanship, we sought out a few of the buyers for further elucidation on the subject. In short, we wanted to know what were the qualities that impressed the buyer as positive selling, i. e., aggressiveness, and what were the qualities that impressed the buyer as negative selling, i. e., being a pest.

As is usually the case, most of the buyers found it easy to talk of the things that were wrong with litho-



graphic salesmen and had little to say about what was right. Here is a typical comment. We relate it first because it is timely and it is possible that it may not be an isolated example in times like these.

"We're all in this defense emergency business together," remarked this buyer. "In our own company, it is almost impossible to get some of the materials we use in our manufacturing process. We may have to shut down some of our units before long. But it's that way all over. We're all in the same boat. The other day a lithographic salesman I have given some business to in the past came in. It was about a job we've got in the works, a booklet for our salesmen. I told him it wasn't ready yet and I would get in touch with him when it was. But no, he wanted to sit down and tell me the

troubles they were having because of the defense emergency at his company. Now, I would be willing to listen to an intelligent recital of what the lithographic industry is up against because I buy a lot of lithography and it might help me with my planning. But the gist of this guy's tale of woe was that his company wasn't giving him a square deal. He pointed out how it was impossible for him to quote prices that his company would stand back of, and what a handicap this was to him. He pointed out how he had to turn down some jobs because his company was so busy they couldn't bother with anything but long runs. He told about how they had been caught napping when the metal situation became acute and how they couldn't get plates. He went on and on about what a hell of a job it was to sell lithography under such conditions. Through it all he held his company personally responsible for everything. You had thought they had created the defense emergency. He told me so many things about his company that I would never dream of giving them another job. I wouldn't be confident that I would ever get delivery or that they wouldn't hook me someday."

Undoubtedly this was an extreme case. Listen to this from a buyer who had a large map job:

"I called in a salesman from a lithographic house I have reason to know does good work. They sent a fellow who did the best job of talking himself out of an order I have ever seen. He marched into my office fairly bristling with authority and cocksureness. Before I had a chance to finish my explanation of what I wanted done he took over and told me how it should be done. For every suggestion I made he had another and a better one. "No, I don't think you should do it your way. Now if you'll just, etc., etc." When he was finished most of my ideas had been scrapped for his. The point was I liked my ideas better. Needless to say he didn't get the job. He was aggressive all right. He was also a pest."

Among the other types of "pests"  
(Turn to page 55)

# basic factors

## in the Reproduction of Tone Values

**An understanding of tone values is the first step towards accurate reproduction of original values with a minimum of waste and effort.**

**BY ELBERT M. LUDLAM**

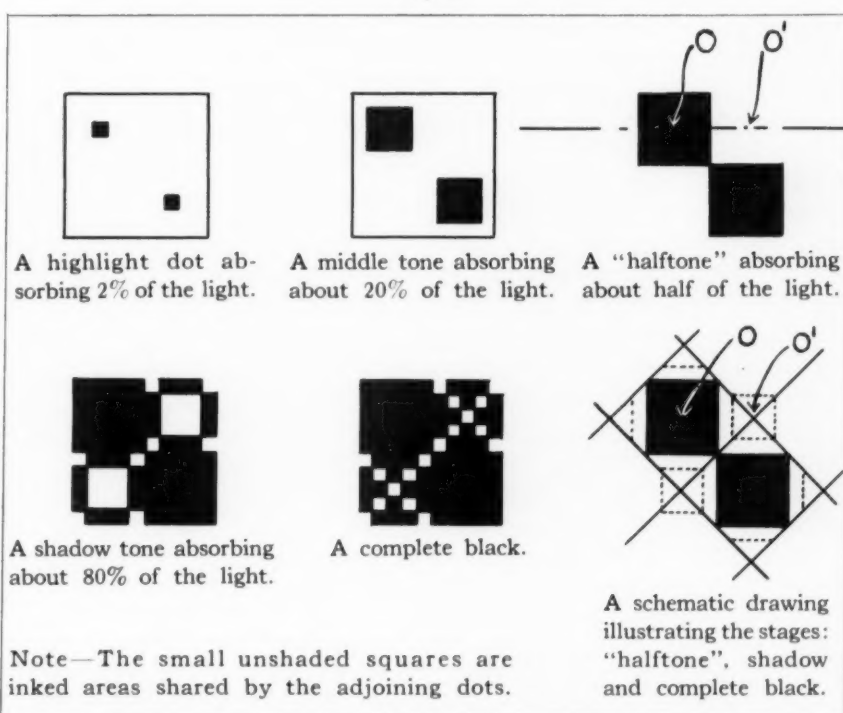
**I**N order to know how to design a continuous tone screen which will give the results you want, it is, of course, necessary to understand the basic factors involved in the reproduction of tone values. We shall briefly review these basic factors here. If at first reading they seem somewhat involved, we assure you that they are not. A thorough understanding is not difficult if, in connection with the description, the diagrams are carefully studied. Whether involved or not, though, we think that an understanding of how tone values are simulated in a reproduction, and the variables which must be taken into account, are highly important before the lithographer can think about designing his own continuous tone screens. All that is needed is a little study and patience, both of which will be amply repaid.

It is commonplace to say that screen processes are capable of yielding tones visually comparable to continuous tone processes because the eye cannot detect the individual black and white elements which make up the screen process tone. Everyone knows that. However, most of us make little or no effort to

understand the mechanics of reproducing the many different tones which make up a reproduction. If we did, we would know better how to correct a faulty reproduction, and we would be more adept at reproducing original values with a minimum

of waste and effort. We'd be more efficient. Can we, for example, say without fear of contradiction that the tones rendered by present screen processes are true to the original? We know what we see, of course, and if our eye tells us that the resulting

**Fig. 1**



reproduction is not true to the original, why, we know, simply, that it is not. But observing by eye can only be done *after* the work is reproduced. Wouldn't it be more systematic and scientific to know pretty much beforehand whether a certain screen will yield a result closely resembling the original? An understanding of tone will accomplish that desirable end.

The first step toward an understanding of tone calls for an understanding of the 50—50 value, the checkerboard tone. The area of the tone is equally divided between white squares and black and therefore absorbs half the light falling upon it and reflects the other half. It is a "halftone." Lighter tones are obtained by using smaller areas of black ink and darker tones by smaller areas of clear paper.

From the pin point highlight dot to the middle, or halftone dot, the size of the black dot increases in a regular manner. However, once the "halftone" is reached all dots become joined at their corners and from this point on no longer grow equally in all directions. This is illustrated in Fig. 1.

We see from the diagram that once the dot has reached halftone size it must share further growth in area with the adjoining dots. Its rate of growth is therefore markedly reduced. It is in this changing rate of growth of the area of inked space that our interest chiefly lies, for, in the interests of accurately reproducing values, we wish to devise some means of evaluating this change and determine just what effect it has on the tone of the reproduced image.

We are all familiar with the formation of a dot pattern by the varying intensity of light, as illustrated in Fig. 2.

At the point of maximum intensity behind any screen opening we find that light from every portion of the area of the lens opening can reach through the screen. Thus, in the diagram point *O* can be reached by a line from any part of the lens. At point *O'* (point of minimum intensity), however, the rays from *D*, *C* and *B* are blocked by the screen ruling *S<sub>3</sub>*. Only rays from the ex-

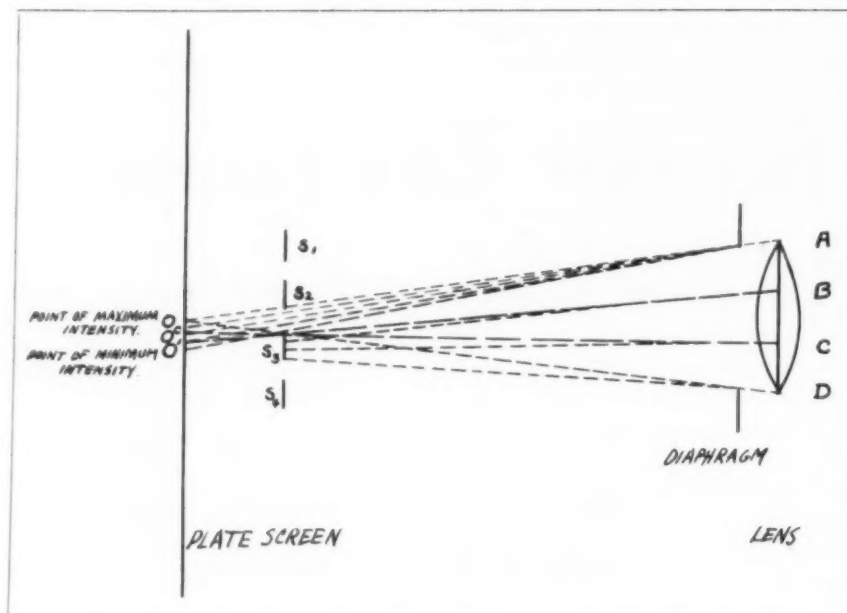
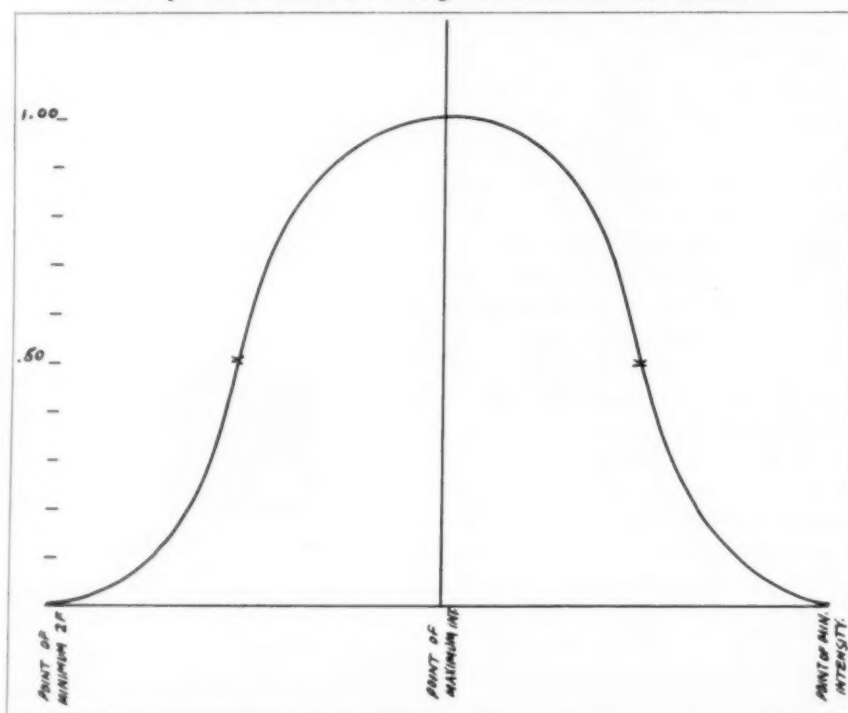


Fig. 2. Diagram of formation of screen image.

treme edge *A* could get through to *O'*. At any intermediate point between *O* and *O'* it is found that only a portion of the light comes through the opening between *S<sub>2</sub>* and *S<sub>3</sub>*. Thus, the intensity varies from a maximum at *O* to a minimum at *O'*. If the intensity of the original subject is great enough, then it will be recorded at even the point of minimum intensity behind the screen,

so that the entire area of the image will develop up. The exposure is made so that the light from the weakest part of the subject will just record at the point of maximum intensity *O*. Intermediate values will record at *O* and in the area surrounding *O* out to some point between *O* and *O'* depending on actual intensity. Thus, the size of the dot is directly related to the brightness of the

Fig. 3. This is the curve of the per cent opaque area of the usual screen pattern as related to the diagonal from minimum to minimum.





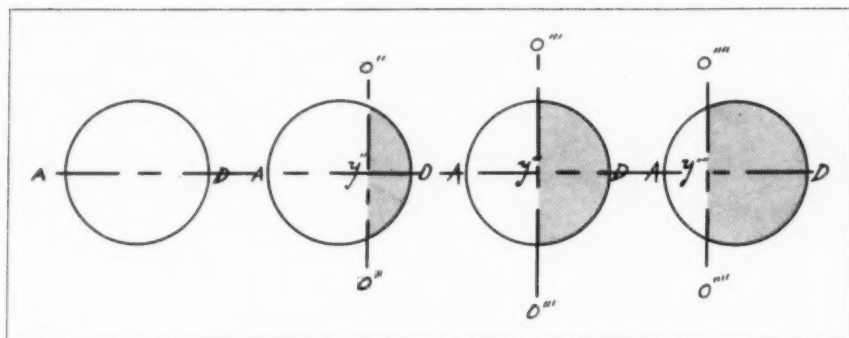


Fig. 4. The shaded portions indicate the area of the lens which is not effective for the points  $O''$ ,  $O'''$  and  $O''''$  along the  $O-O'$  axis

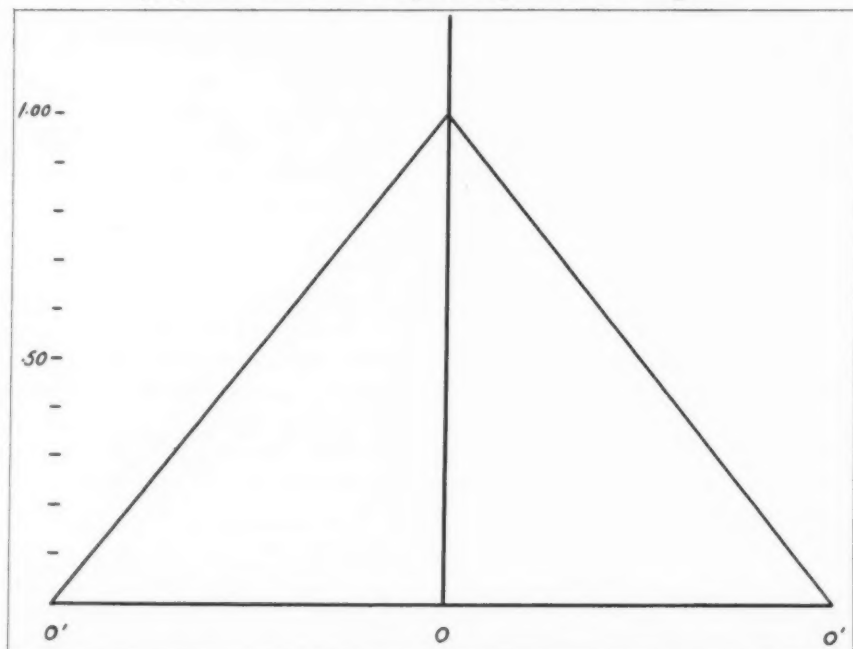
original subject. Therefore, since the size of the dot also determines the reflective power of the print, we can relate the subject's intensity and its final produced values by any factor which controls the size of the dot.

Points  $O$  and  $O'$  represent the centers of the black and white squares in the "halftone" pattern. Suppose, therefore, that we relate all other factors to this diagonal  $O-O'$ . Actually, in order to measure the reflective values of the various dot patterns we must consider the complete cycle, going from minimum to maximum, and back to minimum again. Thus, for a base in Fig. 3 we have used a line representing the distance from one point of minimum intensity through a point of maxi-

mum intensity and then back to the opposite point of minimum intensity.

THE area covered by ink in terms of percentage of total area can be considered as the per cent absorption for the tone, so long as the ink is a good black. Actually 100 per cent absorption is never reached, but for simplicity in presenting this material it seems more satisfactory to assume an ink which is absolutely black. In Fig. 3, then, we have plotted a curve representing the per cent reflection for the various dot patterns in a diagonal from one point of minimum intensity to the next. It will be noticed that this is neither a straight line nor a curve which varies in a very regular manner. It increases at a rate varying

Fig. 5. The area of the effective section of the lens as a proportion of the total area plotted against the  $O-O'$  diagonal.



from slow to very fast, and then in the darker areas it rapidly slows down again.

In short, it shows that the increasing size of a highlight dot results in a marked increase in the absorption of the light. As the dot becomes large, a corresponding increase along the diagonal results in a much more marked increase in the absorption, or in the darkness of the tone. This continues up to the "halftone" value where the increase in absorption marked by an equal change in the diagonal starts to fall off rapidly.

This change in the value of the resultant tone is, of course, due to the sharing of area by continuous dots once the "halftone" stage has been passed. If it were not for this the rate of increase of absorption would continue to become greater right up to the point of maximum value, which is pretty much what happens with continuous tone screens. We cannot, however, evaluate the resultant reproduction from any type of screen until we have determined the intensity variation across the diagonal. We know that this differs markedly in various types of screens.

In the regular ruled screen, for example, which we have been considering, the intensity of the light along the diagonal varies in proportion to the area of the lens which is effective at each successive point. Further study of Fig. 2 will be helpful in appreciating this. In that illustration we have considered only those rays originating in a line across the mid-surface of the lens, but they are the same over the entire surface of the lens. Thus, the point  $O$  receives light from the entire surface, assuming maximum opening of the diaphragm. However, at some intermediate point  $O^C$  all light is cut off which originates between  $C$  and  $D$  on the lens. This holds true for the entire area of the lens between a line drawn perpendicular to  $C$  and the edge of the lens itself. Remember that we are speaking of a cross-ruled screen—in other words, the opening  $S_2-S_3$  is not a slit but a square. Therefore, the effect of the perpendicular rulings must be considered. Point  $O$ , the maximum point, would be a line of equal intensity, perpen-



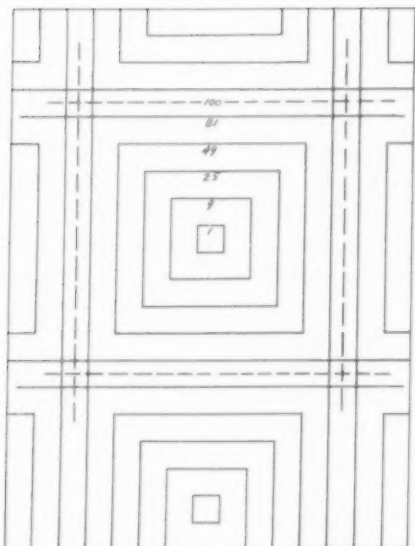


Fig. 6. Idealized pattern of halftone dot values for contact screen.

dicular to the paper, if the opening  $S_2-S_3$  were a slit. Since the cross rulings have the same effect as the  $S_2-S_3$  rulings, the intensity along the line at  $O$  actually varies identically like that along the line  $O-O'$ . In other words, so far as the center lines of the diagonal  $O-O'$  are concerned their intensity is not affected by the cross rulings. Their intensity, therefore, varies as does the area of the lens which is effective at that point.

This is shown diagrammatically in Fig. 4 where the effective lens area is indicated for maximum intensity and three intermediate tones. Since the areas are all calculable from the section of the diameter  $A Y''$  etc., they will vary directly as the square of this value varies. The effective portion of the lens surface then will vary directly as the distance  $A Y''$  which, in turn, is shown to be proportional to the  $O-O''$  distance of the diagonal. Fig. 5 is a plot of this data plotted on the same base as the ink area diagram in Fig. 3.

Note that Fig. 5 is a straight line indicating a constant rate of variation in intensity along the diagonal in contra distinction to the changing rate indicated in Fig. 3. The question may come up as to the accuracy of Fig. 3, which is based on square dots whereas minimum dots do not retain the square form. This change of shape would further accentuate the divergence from the straight line and has been ignored since at this

time our interest is purely qualitative.

If no further factors altered the results, the divergence between these two curves would indicate a very notable loss of gradation between tones in the highlight and shadow regions. This is so well known that no discussion of it is necessary except to point out that since the position of the characteristic curve of the photographic emulsions used is very close to a straight line, it, therefore, is not to blame for the flattening of highlights and shadows. Because the characteristics of photographic emulsions are similar to this, however, the fault has usually been laid at their door. The real difficulty in achieving accurate gradations of tone is, as we now see, inherent in the ruled screen process.

**O**THER factors which may affect the accuracy of tone gradation are:

- (1) The variation in dot shape from circular to square due to the etching process and to halation in the photographic image.
- (2) Characteristic photographic variations due to the use of non-linear portions of the curve.
- (3) Variations due to corrective measures, such as high-light, middle tone and shadow exposures, intensification and reduction.

The first two factors tend to accentuate unfaithful reproduction, whereas the last is corrective in nature if carried out carefully. Evaluating the degree of error to be anticipated and the degree of correction which can be obtained should, therefore, enable us to more readily apply such measures. Heretofore this has been obtained on a basis of trial and error.

It has been mentioned that in continuous tone screens the gradation of the dots can be predetermined and fixed. Not only can the gradations be fixed but they can also be distorted in any desired manner. What is still more important, the lens plays no part in making the screen negative through the continuous tone screen, and the area of the resultant dot varies directly with

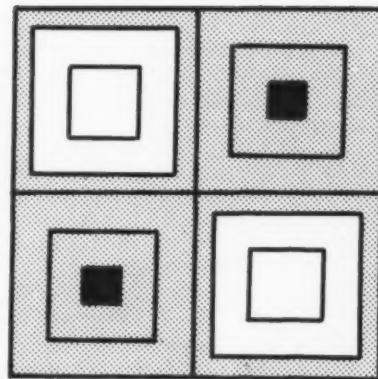


Fig. 7. Isopaques of continuous tone screen made from a standard cross-ruled screen.

the screen contrast desired. We can therefore so design the screen so as to give straight line reproduction comparable to the original copy.

The dot pattern for a contact screen is very different from that of the cross-ruled screen as illustrated in Fig. 6. Instead of a halftone checkerboard pattern, the dot merely grows in size from minimum to maximum. When continuous tone screens are made from cross-ruled screens the result is a variation of the checkerboard pattern. In Fig. 7 we have drawn a schematic diagram of the areas which print, showing the several different tones, when using a continuous tone screen of the checkerboard type. The small black dots are typical highlight dots. Halftones are usually of the checkerboard pattern and the shadow tones are markedly similar to the typical pattern of the cross-ruled screen.


Since the continuous tone screen is used in contrast, the intensity curve will be very similar to that of Fig. 3, depending upon the design. Since the intensity and reflection curves will come so close to matching, the reproduction will be extremely accurate. We must not, however, lose sight of the fact that the corrections normally employed with the cross-ruled screen also make it possible to obtain quite accurate results. These corrective factors will be further analyzed at a later date and the degree of their accuracy will be shown.

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MODERN LITHOGRAPHY



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Lithography by Rogers-Kellogg-Stillson.





By Earle Higgins

# Extending

## THE MARKET FOR LITHOGRAPHY

**A**MONG the products which we predict will be manufactured in increasing quantities by the lithographic process as time goes on are recipe books. Prior to 1934 practically all of the recipe books published by food products manufacturers were printed by letterpress. The more elaborate ones were produced in four colors on coated papers.

However, in 1934 there appeared a recipe book printed by lithography which marked the beginning of the revolution. This was an 88-page book published by Libby, McNeill & Libby and lithographed by R. R. Donnelley & Sons, of Chicago. It was one of the most outstanding examples of lithographic craftsmanship ever produced, and at the same time was, and is, the finest recipe book ever printed. Today, seven years later, its style is still being copied and its reproductions of food products still being admired. With the appearance of the Libby, McNeill & Libby book, the tide slowly began to turn in favor of lithography as a medium for reproducing foods in their natural colors.

The 88-page Libby, McNeill & Libby book, with its attractive french

fold cover, clearly demonstrated the ability of the offset process to reproduce food products in natural colors on a standard type offset sheet that would meet the most exacting demands of any food product company. The pages of the book, free from reflection and glare, reproduced food products with as subtle and effective "mouth watering" appeal as ever appeared in print.

Without doubt the quality and huge success of the Libby, McNeill & Libby book was directly responsible for influencing many other food product manufacturers to adopt the offset process for the printing of their recipe books, in fact for anything, whether folders, booklets, or direct-mail, carrying food illustrations. Indeed, the writer knows of a specific instance where the pages of the Libbey recipe book converted an advertiser to lithography. The pages

of the book were cut out and carefully mounted on a black cover stock to make an attractive display. These were presented to the board of directors of a large corporation as examples of what lithography, as a process, could do in illustrating food products. They proved to be the determining influence in creating a \$70,000 order.

Three recently published recipe books, lithographed in full-color, long-run editions for national distribution are commended to the attention of lithographers interested in the current trend in recipe book design. Extremely attractive and persuasive in their advertising appeal, they illustrate the influence of the aforementioned Libby book. The three books are "99 Potato Recipes," "121 Tested Recipes Made with State of Maine Canned Goods" and the unique General Foods, "A Cal-

**More types of printing could be produced by lithography, says the author, if the industry would only overcome one or two of its shortcomings.**

endar of Desserts." Also, a recipe book published two years ago by Gas Exhibits, lithographed by Rogers-Kellog-Stillson, of New York, and authored by the famous gourmet, George Rector, titled "Home at the Range" is a notable example of the use of lithography for this type of printing. Few experts, by casual observation or fairly close scrutiny, would guess this book to be reproduced in its entirety by the offset process. The text pages are in two, and its case bound cover in three colors. The typography has much merit, and that plus many extremely decorative and semi-humorous illustrations, all reproduced beautifully, have placed it in a choice spot in many libraries. The end leaves, designed with the two giant initials G R (George Rector) are quite unusual.

THIS book might be termed a "letterpress type of printing job." And that, we feel, calls for a word of explanation. It has been argued back and forth for years that letterpress and offset are two separate processes, each having its own individual character and purpose. Letterpress is best for one type of job, the argument runs, while offset is best for another type of job. In all our experience with both types of reproduction we have never seen an adequate definition of the separate purposes given. Some will say that letterpress is best where sharp definition and coated stock is used, while others maintain that where soft, "artistic" impressions are wanted, then offset is the answer.

But who is to say that sharp impressions on coated stock precisely fulfill the requirements of a given job, or that soft, delicately shaded tones do for that matter? It's a matter of opinion and exposure. By exposure we mean what the buyer has seen most of. Custom, in other words. And, certainly customs are subject to change.

The average buyer has few creative ideas. He is there to purchase the product that will do his job at the best price, in the best way and in the easiest way. Therefore, we don't hold with the idea that letter-

spring of parsley and bay leaf. Let simmer for two or three hours until a good soup stock is obtained. Strain stock into another sauce pan, discard vegetables and bones. To the strained stock add dried salt pork or ham bone, coarsely chopped cabbage and curaway seeds and simmer for one hour. Season to taste with pepper and salt and serve. Have a bowl of thick sour cream on the table and serve one or two tablespoons with each portion.

1 1/2 pounds beef and bones	1/2 pound salt pork or ham bone
2 quarts cold water	1 small head cabbage, coarsely chopped
1 teaspoon salt	1/2 teaspoon curaway seeds
Soup bunch of vegetables	salt and pepper to taste
1 bay leaf	

Thick sour cream

**OVEN CHOWDER**

If you fancy having corn chowder some time I wish you would try this recipe:

1/2 cup chopped salt pork	1 cup raw potatoes diced
2 slices onion	2 cups water
1 bay leaf	3 tablespoons flour
1/2 teaspoon salt	2 cups milk
1/2 teaspoon pepper	1 can corn (whole kernel)

Cook pork until lightly browned. Add onions and cook two or three minutes. Add seasonings, potatoes and water, cook until potatoes are tender. Thicken with flour mixed to a paste with a little cold milk. Add the remaining milk and corn. Heat thoroughly and serve.

**CRAB BISQUE A LA RECTOR**

3 tablespoons butter	1/2 pound crabmeat (fresh or canned)
3 tablespoons flour	3 tablespoons sherry wine (optional)
1 quart milk	1/2 cup cream, whipped
1/2 teaspoon salt	Paprika
1/2 teaspoon pepper	
Dash of nutmeg	
1 tablespoon Worcestershire sauce	

Melt butter, blend with flour, add milk gradually stirring until perfectly smooth. Add seasonings and let boil two minutes. Add crabmeat which has been flaked and all bits of bone removed. Hold over low heat until thoroughly heated. Add sherry just before serving. Serve in cups with a spoonful of whipped cream and a dash of paprika over the top.

## FISH



THERE ARE ways of preparing the fish dish—ways which make it so attractive when it reaches the table that the finny tribe should almost prefer greeting the guests to aimlessly wandering their waterways. Personally I find these denizens of lake, stream and sea easier to cook than to catch. But perhaps that's because I was reared to the range rather than the rod. Anyway, here are a lot of ways to make fish fascinating, palatable and inviting.

**COCKTAIL SAUCE FOR SHELLFISH**

1/2 cup tomato catsup	2 tablespoons strained lemon juice
1/4 cup grated horseradish	10 drops tobacco sauce
1 tablespoon Worcestershire sauce	1/2 teaspoon salt

Mix ingredients together and serve in small cocktail glasses.

**OFFER COCKTAIL**

Serve six oysters on the half shell to each portion. Arrange them on a bed of finely chopped ice. Garnish each plate with one sprig of parsley and one piece of lemon.

14
15

Typical pages from "Home at the Range."

press is the best process for this or that job, and offset the best process for another job. We hold that offset is the best process for *all* jobs—if you are able to make the buyer see it that way. Lithographers are capable of selling the lithographic process to buyers as the best for *all* jobs, if they only went about it in the right way.

One of the main things you hear lithographers criticized most about by buyers these days is their pitiful lack of knowledge of good typography. Letterpress has the edge here, and has had for years. The day once was when it was the chief purpose of lithography to reproduce illustrations, such as are found on posters, displays and the like. There wasn't much of the "letterpress type of job" being produced by lithography, the kind of work where straight type is used. Consequently, lithographers never became very familiar with typography. They didn't have to. But all that is changed now. More and more lithography is being used on jobs where straight type is reproduced. Consequently, it behooves lithographers to learn more about typography if they are to reproduce "letterpress" kind of work, of which recipe books are a very good example. By its very nature, the re-

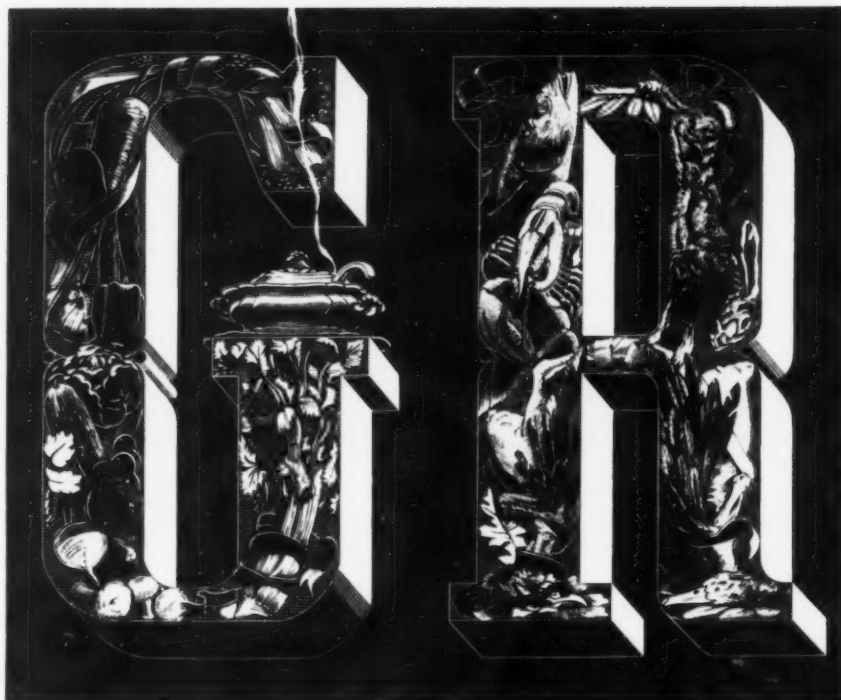
cipe book demands that there be a lot of type copy. While the ingredients and the finished product of the recipe can be illustrated, the instructions for making a dish cannot be.

There are vast volumes, such as booklets, folders, brochures, broadsides, catalogues, etc., that require similar typographic designing and preparation that could and would be printed by offset if two vital factors were taken more seriously into consideration by lithographers.

The first and foremost, as we have said, is a knowledge of good typography; the second is the use of better grades and more varieties of paper. These two elements are essential to this type of printing. Many lithographers are conscious of these needs but are in doubt as to how to get their salesmen and the rest of their organization conscious enough of them to help in producing a new volume of profitable business of this type.

ALAN we have devised that will work, based on experience in actual operation, without costing much money—but requiring time and energy and someone to organize and promote it, is, in outline, somewhat as follows:

**MODERN LITHOGRAPHY**



End leaves from "Home at the Range"

Plan a series of meetings to be held once a week for twelve weeks.

Have all salesmen attend the meetings, together with a selected group from the production and art departments.

Select a series of subjects for the meetings somewhat as follows:

*1st Week*

The purpose of the meetings explained by the sales manager, or the head of the company, illustrated with an exhibit of "letterpress types of printing."

*2nd Week*

Speaker on "Why Good Typography Helps Get More Profitable Orders," followed by discussion.

*3rd Week*

Speaker on "Why Better Papers Help Get More Profitable Orders," followed by discussion.

*4th Week*

Speaker on "Typographic Layouts," followed by discussion.

*5th Week*

Speaker on "Designing a Booklet with an Idea," followed by discussion.

*6th Week*

Speaker on "Designing a Broadside," followed by discussion.

*7th Week*

Speaker on "A Direct Mail Campaign," followed by discussion.

*8th Week*

Speaker on "Lithographed Catalogues," followed by discussion.

*9th Week*

Speaker on "Four Page Letter Heads," followed by discussion.

*10th Week*

Speaker on "Folding and Binding," followed by discussion.

*11th Week*

Speaker on "Advertising Recipe Books," followed by discussion.

*12th Week*

"Can We Get More Orders for 'Letterpress Types of Printing?'," a general group discussion, with all taking part, based on the information obtained at the eleven previous meetings. This is a resume.

This list of subjects may look like a formidable one to organize, but after the first two or three meetings get under way the rest will be comparatively easy to arrange. Many of the suppliers in the lithographic industry will be only too glad to furnish exhibit material and help with the speakers.

In detail the procedure for handling the various subjects, arranging for the speakers and specimen exhibits could be as follows:

*1st Meeting*

This meeting should be conducted

by a selected person within the organization, no outsiders invited. The material for the exhibit can be obtained by writing to the advertising departments of a few of the paper manufacturers.

*2nd Meeting*

Try getting a speaker from Lanston Monotype Co., Mergenthaler Linotype Co., American Type Founders Co., Ludlow Typograph Co., or, if located in a large city, from a good advertising composition house.

*3rd Meeting*

Secure a speaker from one of the manufacturers of offset papers. Your local paper merchant will cooperate on this.

*4th Meeting*

Write same list as for the 2nd meeting asking help in securing a speaker.

*5th Meeting*

Secure either an advertising manager of a sizable firm that buys printing or the art director of some commercial art studio.

*6th Meeting*

Same as 5th meeting.

*7th Meeting*

Write to the Direct Mail Advertising Association, the Mail Advertising Association and other national and local direct mail organizations for prize-winning campaigns. Have the advertising manager of one of the prize-winning companies speak.

*8th Meeting*

Write to the paper manufacturers for exhibit material and help in securing a speaker.

*9th Meeting*

Many of the paper companies have been conducting contests for outstanding letterheads. Write them for specimens and get the advertising manager of one of the companies cited in the awards to speak.

*10th Meeting*

The local binder will provide an exhibit of a variety of specimens and be glad to speak.

*11th Meeting*

Secure a wide collection of recipe books by clipping and sending the coupons attached to food advertisements in *The Saturday Evening Post*, *The Ladies Home Journal*, *Good House-*

(Turn to page 63)





**MERLE S. SCHAFF**  
... Dando-Schaff Printing & Publishing Co., and NAPL President, will formally open the convention, Thursday, the 18th.



**WALTER E. SODERSTROM**  
... Executive Secretary, will deliver his annual report on Thursday morning.



**A. G. McCORMICK, Jr.**  
... McCormick-Armstrong Co., and NAPL Vice-President, will speak on "Setting Up Shop Rules."

## N.A.P.L. PLANS 'GUNS vs. BUTTER'

**G**UNS versus Butter; or Operating a Lithographic Plant in an Emergency Period," is the theme of the 9th Annual Convention of the National Association of Photo-Lithographers, slated for the week-end of September 18 to 20, at the Netherland Plaza Hotel, Cincinnati. The NAPL has set itself the task of attempting to come to grips with the national emergency—the prospect of heavier taxes, rising prices, further curtailment of civilian production, scarcity of materials, steadily mounting living costs, government controls of various kinds, "standardization" of consumer goods—and, as far as humanly possible, to anticipate the problems facing lithographers during coming months.

To this end the Program Committee has announced a roster of speakers and subjects authoritative and timely. Probably at no other convention since the NAPL has been formed has the convention program reflected so sharply the problems facing all lithographers at the present time. Formal addresses, technical sessions and equipment and manufacturers' exhibits have all been keyed to focus attention on the

emergency, and to frankly consider its effect on the lithographic industry. The NAPL points out that the questions facing the industry are of critical importance and cannot be solved by one group alone, but require the united, all-out effort of the entire industry. Hence, lithographers everywhere, large or small, black and white and color, have been invited to attend the convention and participate by bringing along their problems and suggestions.

A panel which includes some of the industry's outstanding craftsmen will head up the Lithographic Production Clinics. Lithographers have been submitting questions during the past three months which they would like to see answered at the clinics. In our June and July issues some of

*Heavier taxes, rising prices, further curtailment of civilian production, scarcity of materials, government controls of various kinds—among topics slated for discussion at annual meeting in Cincinnati, Sept. 18-20.*

these questions were published. Others which have come in since, reflecting the wide-spread interest which the clinics have created, follow:

What are some of the best methods to use for the conservation of aluminum and zinc plates, especially at this time when these two metals are on the priority list and supply is limited?

What are some of the best methods to use in preserving and caring for blankets and rollers, either rubber or synthetic because of priority and shortage of basic materials?

Has the use of fluorescent lights used in a bunch for hardening bichromated gum press plates proved a better medium than arc lights because of power costs and less heat generated?

Has the use of the water cooled A-H 6 Lamp proved successful for contact printing of negatives and positives? What are the favorable comments?

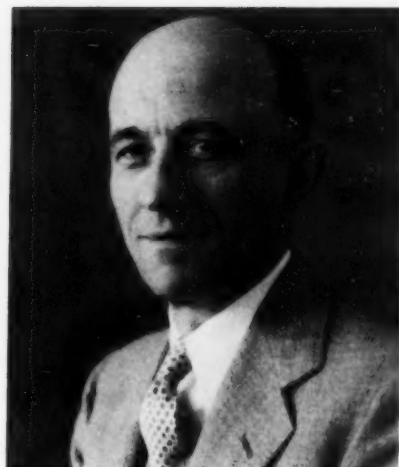




**REX G. HOWARD**  
... Peoria Blue Print & Photopress Co., will talk on "Handling Orders."



**ALFRED ROSSOTTI**  
... Rossotti Lithograph Co., will speak on "Estimating and Costing."



**JOSEPH MACHELL**  
... Stecher-Traung Lithograph Co., will speak on "Pressroom Problems."

## PROGRAM AT 9th CONVENTION

Is there any set rule for the strength of a screen positive that is to be used in a photo-composing machine so that the plate will match the hand proof or the sketch, taking into consideration the difference between a proving plate grain and a press plate grain, and if the particular positive has been made and proved in a trade shop using aluminum, and the press plate in a litho plant on zinc?

What are the best methods that will enable a photo-composing machine operator to determine what his exposure time on a screen positive should be when

this particular positive has been made in a trade shop—the trade shop having marked the exposure time, for example,  $1\frac{1}{2}$  minutes, basing this on the type and power of lights, that were used? The photo composer, not knowing the light strength used, would probably miss a minute and a half exposure by about 50% when he has power fluctuation to consider. Therefore, what are the best procedures to use for this particular problem?

What definite advantage is a paper hydroscope to a non-conditioned plant? What importance is temperature and

humidity control to the plate making department?

What are the advantages of synthetic resins in lithographic inks?

Why do black and white jobs look washy and flat?

Is it possible to regrain deep-etch aluminum and zinc plates?

Can plate grains be maintained uniformly day in and out?

All of the 26 exhibitors listed on these pages will, of course, show their latest developments and improve-

**FRED BURTANGER**  
... Reynolds & Reynolds, will participate in the Production Clinics.



**SUMMERFIELD ENEY**  
... Champion Paper & Fibre Co., will participate in the Production Clinics.



**HARVEY GLOVER**  
... Sweeney Lithograph Co., will participate in the Production Clinics.





**ROBERT REED**  
... Lithographic Technical Foundation, will demonstrate the Inkometer.



**VERNE MITCHELL**  
... Harris-Seybold-Potter Co., will talk on "The Human Side of Lithography."



**ALEXANDER THOMSON, Jr.**  
... Champion Paper & Fiber Co., will be in charge of entertainment.

ments in materials and equipment. Among the special features announced for exhibition, news of which we have learned in advance, are the Kodagraph Contact Screen Process and the Kodak Fluorescence Process, both of which will be demonstrated by Eastman Kodak Co.; and the Inkometer, an instrument for measuring the consistency of lithographic and printing inks which has been developed by the research laboratories of the Lithographic Technical Foundation. The Eastman demonstration will be accompanied by talks by John McMaster and Alexander Murray, of that company. The problem of developing a scientific mechanical test for ink consistency to take the place of the time-honored but unreliable and unrecordable finger tests, has occupied the minds of ink chemists and engineers for many years. Professor Reed, Director of the Foundation's research laboratories and inventor of the Inkometer, believes this instrument solves the problem and has succeeded in convincing a number of printing ink manufacturers and printing and lithographic houses of the value of the Inkometer in standardization of inks, production control, development work, and research. He will be at the convention to back up his claims with demonstrations, and to answer questions.

Champion Paper & Fiber Co., and

Beckett Paper Co., both with manufacturing plants at Hamilton, Ohio, and Dayton Rubber Mfg. Co., at Dayton, Ohio, have extended invitations to the conventioners to visit their plants. The NAPL has accepted the invitations and conducted tours will be made to the plants of the three companies. Transportation will be arranged so that all who wish to make the trips will have an opportunity to do so.

Alexander Thomson, Jr., vice-president and advertising manager of Champion Paper & Fibre Co., is serving as Chairman of the Entertainment Committee at the convention. Though entertainment plans were not complete as we went to

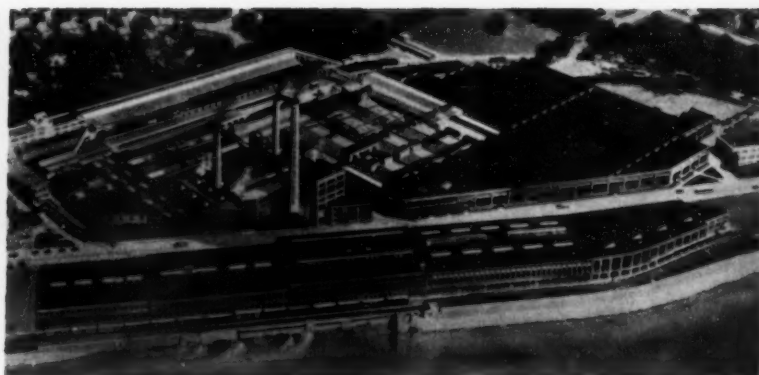
press, Mr. Thomson, in reply to our question asking what kind of entertainment would be provided, had this to say:

"It is impossible now to make any positive plans for entertainment . . . particularly for the banquet, as one can't tell what acts will be available then. We do, though, plan to have a high class band for dancing, and a floor show of unusual caliber. I have acted in this capacity for a number of conventions and have long since come to the conclusion that convention delegates, for the most part, are rather sophisticated and can't be interested in anything but the best of entertainment. Second class stuff is worse than nothing at all.

## TO EXHIBIT AT N.A.P.L. CONVENTION

AGFA ANSCO CORPORATION  
AMALGAMATED LITHOGRAPHERS OF AMERICA  
RUSSELL ERNEST BAUM  
BECKETT PAPER CO.  
CHAMPION PAPER & FIBRE CO.  
COLEMAN & BELL  
RALPH C. COXHEAD CORPORATION  
DAYTON RUBBER MFG. CO.  
EASTMAN KODAK COMPANY  
FUCHS & LANG MANUFACTURING CO.,  
Division General Printing Ink Corp.  
GODFREY ROLLER CO.  
HAMMER DRY PLATE & FILM CO., INC.  
HARRIS-SEYBOLD-POTTER  
INTERNATIONAL PRINTING INK  
Division of Interchemical Corp.

LITHOGRAPHIC TECHNICAL FOUNDATION  
LITHO EQUIPMENT & SUPPLY CO.  
MACBETH ARC LAMP  
MALLINCKRODT CHEMICAL WORKS  
MARK'S SPECIALTY CO.  
MCKINLEY LITHO SUPPLY CO.  
MERCK & CO., INC.  
NELSON ASSOCIATES  
NORMAN-WILLETTS CO.  
HAROLD M. PITMAN CO.  
RAPID ROLLER CO.  
RUTHERFORD MACHINERY CO.  
Division General Printing Ink Corp.  
SEYBOLD DIVISION  
Harris-Seybold-Potter Co.  
SINCLAIR & VALENTINE COMPANY  
VANDERCOOK & SONS



Beckett Paper Co., left, and Champion Paper & Fibre Co., right, will conduct special tours for lithographers attending the NAPL convention, at Cincinnati, Sept. 18 to 20. The special tours have been scheduled for Thursday and Friday, the 18th and 19th, and transportation to Hamilton will be provided. A visit to the Champion Mill will be combined with a visit to the Beckett Mill. Both are located in Hamilton.

There will be a golf tournament at one of Cincinnati's better courses, and worthwhile prizes for the various winners."

Each registrant at the convention will be given gifts. Favors will also

be given to all attending the banquet. Walter E. Soderstrom, executive secretary, has extended an invitation to everyone in the lithographic industry, members of the NAPL or not, to attend the con-

vention. Registration fee at the convention is \$7.50, which includes the annual banquet and dance. However, registrations made by mail prior to September 1 are \$5.00 per person.

## N.A.P.L. CONVENTION PROGRAM

### THURSDAY

September 18

#### *Address of Welcome*

MERLE S. SCHAFF, President

#### *The Detail and Paper-Work Necessary in Handling an Order to Advantage*

REX G. HOWARD

Peoria Blue Print & Photopress Co.

A. S. KOCH

Kelley-Crescent Co.

#### *Wage and Hour Laws and Regulations*

CAPTAIN L. B. MONTFORT

Legal Counsel

### LUNCHEON

#### *Training and Directing a Sales Force*

A. J. FAY, Sales Manager

National Process Co.

#### *Two New Eastman Developments—*

Kodagraph Contact Screen Process and Kodak Fluorescence Process

JOHN McMASTER

ALEXANDER MURRAY

Eastman Kodak Co.

#### *Advertising for New Business*

##### Participants:

HARRY S. BRINKMAN

Foto-Lith, Inc.

ALLEN H. FROST

Copifyer Lithograph Corp.

### FRIDAY

September 19

#### *Suggestions for Setting Up Shop Rules*

A. G. McCORMICK, JR.

The McCormick-Armstrong Co.

#### *Supplying the Lithographic Industry Today and Tomorrow from the Viewpoint of Availability, Delivery and Cost*

##### Participants:

ALUMINUM—Aluminum Company of America

BLANKETS AND ROLLERS—The Dayton Rubber Mfg. Co., Godfrey Roller Co., Rapid Roller Co.

CHEMICALS—Mallinckrodt Chemical Works, Merck & Co.

FILM—Agfa Ansco, Eastman Kodak Co., Hammer Dry Plate and Film Co.

INK—Fuchs & Lang Mfg. Co., Division of General Printing Ink Corp., International Printing Ink, Division of Interchemical Corp., Sinclair & Valentine Co.

PAPER—The Champion Paper and Fibre Co.

PRESSES—Harris - Seybold - Potter Co., Rutherford Machinery Co., Division General Printing Ink Corp., Vandercook & Sons

ZINC—Illinois Zinc Co.

### LUNCHEON

#### *Estimating and Costing in Today's Market Control Equipment from Management's Viewpoint*

ALFRED ROSSOTTI

Rossotti Lithograph Co.

#### *Pressroom Problems*

JOSEPH MACHELL

Stecher-Traung Lithograph Co.

### ANNUAL BANQUET

### SATURDAY

September 20

#### *Production Clinic*

##### Participants:

TED BELITZ

American Colortype Corp.

HENRY BRUNING

The Gerlach-Barklow Co.

FRED BURTANGER

Reynolds & Reynolds

GUS CARLSON

Harold M. Pitman Co.

SUMMERFIELD ENEY

Champion Paper & Fibre Co.

HARVEY GLOVER

Sweeney Lithograph Co.

JOHN McMASTER

Eastman Kodak Co.

ROBERT REED

Lithographic Technical Foundation

A. P. REYNOLDS

Spaulding-Moss Co.

ALFRED ROSSOTTI

Rossotti Lithograph Co.

### LUNCHEON

#### *The Human Side of Lithography*

VERNE MITCHELL

Harris-Seybold-Potter Co.

#### *Production Clinic*

(Morning Sessions Continued)



# STAINLESS

**B**Y this time it is a pretty well established fact that stainless steel is a very satisfactory metal for offset printing. In fact, it is probably the best metal available commercially, with the exception of pure nickel, for this purpose. Stainless steel of the "eighteen and eight" variety would have met a ready acceptance for offset printing but for three factors which have tended to prevent its use except for a few special applications. These factors are high first cost, excessive weight and stiffness making the metal difficult to handle in large sizes, and the lack of availability in the sizes and gauges needed to cover the lithographic field.

The first argument against the use of stainless for offset purposes, that of high first cost, probably would not bear a careful scrutiny. It is true that stainless costs more per pound and weighs more per sheet than does either zinc or aluminum. Nevertheless, the metal is extremely strong and resistant to kinks and buckles and would probably outlast zinc or aluminum two to one if plate life is considered as times on the press irrespective of the length of the individual runs. Stainless is strong enough to resist breaking at the grippers almost indefinitely.

The second factor which has worked against the use of stainless is the weight and stiffness of the metal. "Eighteen and eight" stainless is heavier than zinc and much heavier than aluminum. Because of its stiffness, it is difficult to roll in thin sheets. As a result, in order to obtain stainless in sheets much wider than 36 inches, it is necessary to order from the mill and then accept a gauge or thickness of metal much

heavier than would normally be required. Such plates are difficult to handle in the transfer room and in the press room. As a result, developments in the use of stainless have been largely in the direction of the smaller sizes.

The third obstacle in the use of stainless has been its general lack of availability. Manufacturers of stainless have not looked on the lithographic market as a fertile field for development, probably because of the low tonnage involved and the technical difficulty of rolling all the sizes and gauges required to cover the lithographic field. As a result, lithographers who would have been willing to spend time and money in developing stainless into an important lithographic metal have become discouraged because they found it difficult to obtain.

The action of the OPM in releasing a certain amount of stainless for lithographic uses with the suggestion that Washington would prefer to see stainless used for offset in place of zinc, is certain to create a new interest in stainless. It should be pointed out, however, that both chromium and nickel enjoy the distinction of being on the list of unavailable materials. It is true that there is a certain amount of stainless in stock in warehouses but it is doubtful if this would be replaced promptly if a wave of lithographic buying should clear the shelves. Whatever the result may be, the

practical application of stainless steel to offset work raises some interesting problems.

In buying stainless, the novice is likely to be confused by the technical language applied to this product. It is pretty safe to specify "eighteen and eight" as the analysis wanted. This indicates that the steel has a composition of 18% chromium, 8% nickel, and the balance of 74% will be mostly iron. This is the standard corrosion resisting stainless alloy, although alloys containing chromium and iron alone have some merit and may come into use for offset work later. The type of finish should be specified. It is not necessary that the working surface be polished as is sometimes specified but it should be free from major blemishes. Such a surface is best obtained by cold rolling and most finishes good enough for offset work will be cold rolled. Cold working, however, makes the metal unusually stiff and hard and it is customary to heat-treat or anneal the steel after rolling in order to remove strains and have the metal in a condition soft enough to handle. This heating has a tendency to form stains on the metal which must be removed by passing the metal through a strong acid bath after which it is quickly rinsed and dried. This latter operation is known as "pickling."

To summarize, a suitable stainless steel sheet for offset purposes will have an analysis of about 18% chromium and 8% nickel. It will

# STEEL

have a smooth finish, although not necessarily polished, and it will have been cold rolled, annealed, and pickled.

Graining stainless steel offers problems. When grained with the usual materials, that is, steel balls and flint sand, the metal takes a flat, soft, gray grain that looks smooth to one accustomed to zinc or aluminum grains. It is a fact, however, that stainless does not require as deep a grain as do the other metals. Indeed it has been stated that stainless can be run on the press without any grain whatever. If this is attempted the water control must be very difficult.

When stainless is grained it curls very badly in both directions. A piece of this steel which has been thoroughly grained comes out of the machine trying its best to assume the shape of a hemisphere. This is likely to prove embarrassing to the plate-maker who prefers to have his plates lie flat while he is coating and exposing them. The reason for this curling has been explained as the release of the tension in the skin formed during the rolling operation. It is claimed that when this skin is removed by graining, the tension is removed and the plate tends to expand at the grained side while the ungrained side retains its tension and tends to pull together. However, if this were altogether the explanation it would seem that after the initial graining the plates would remain

flat while actually the plates curve after each regraining. It seems more reasonable to suppose that the graining operation creates a great deal of new surface area which, in a stiff metal like stainless, exerts sufficient force to bend the sheet.

The curl can be removed by turning the plate over and graining it for an equal length of time on the other side. The curl can also be removed without the cost of a second graining by running the plates through rollers which are arranged so as to give the plate a curve in the opposite direction. Once through such a set of rollers in each direction will usually produce a usable flat plate.

—Kenneth W. Martin

**T**HERE are many advantages and disadvantages in using steel plates for photo-lithography. More

and more lithographers are using them, or experimenting with them. The principle stumbling block is in the thickness of the plate. It is hard to get steel plates with a gauge small enough for certain lithographic presses. Of course, the lithographer can not readily get new presses in these war times, nor does he want to spend the money to have the plate cylinder ground down to accommodate the extra thickness of the steel plate.

Some people also have complained that it is impossible to get a good grain on a steel plate. This difficulty can be overcome by the use of large steel graining marbles and a hard abrasive such as carborundum. It will also be found necessary to extend the graining time as it will take quite a little longer than a zinc or aluminum plate. The proper grain on the steel plate looks more feathery than that of a zinc or aluminum plate. This extra trouble in graining is offset in the case of albumen coated plates by the comparative easy way in which the old albumen image may be removed, first by rinsing it in weak acetic acid to remove the old ink and then using a mild alkaline solution (about 18% of caustic at room temperature) to take off the albumen coating. This won't have any effect on the grain, so that the plate may be scrubbed clean, dried, and put away ready for use. In the case of a deep-etched plate being regrained, it will take longer than a deep-etched plate made on zinc.

The formulas used for making albumen or deep-etched plates on zinc may be used on steel except that

**It's in the news following the action of the Office of Production Management in releasing a certain amount for use as lithographic plates, announcement of which was reported in our last month's issue. In this article two authorities, both regular contributors to M. L., comment on the subject.**

# Announcing the KODAK

● NEW TECHNIQUE, DEVELOPED BY THE KODAK RESEARCH LABORATORIES, REVOLUTIONIZES THE FULL-COLOR REPRODUCTION OF WASH DRAWINGS, SKETCHES, AND SIMILAR ARTWORK

**I**MPROVEMENT at the source—the copy itself—is the significant advance made by the Kodak Fluorescence Process. Now, color correction can be achieved simply by making the sketch with special fluorescent water colors, and by the use of properly adjusted ultraviolet illumination at the copyboard.

The Kodak Fluorescence Process is easily introduced. No change whatever is required in the artist's technique, as Kodak Fluorescent Water Colors are used in the regular way. The fluorescence is invisible in white light.

● Complete instructions for the use of Kodak Fluorescent Water Colors are printed on the inside of the covers of the attractive wooden boxes.



The Kodagraph Copyboard Hood and Filter Holders provide the means for excluding white light, and illuminating the copy with properly adjusted ultraviolet, blue-violet, and green light. Once the installation is complete, no further adjustments need be made. The photographer can produce continuous-tone separation negatives in quantity from a wide variety of "copy," provided it is made with Kodak Fluorescent Water Colors.

## A FULL RANGE OF COLORS

As the name implies, Kodak Fluorescent Water Colors fluoresce when sketches made with them are illuminated by ultraviolet light. Complete sets of eighteen colors, including black and white, are furnished in two sizes, one-ounce jars and ¼-ounce tubes. They provide a full range of color combinations, and are related directly to the best available process inks.

Fluorescent substances have been combined with the various pigments in such proportions that each of the eighteen colors bears the proper relationship to the others. When color separations are made, this fluorescence is utilized to provide added density in the negatives requiring color correction. Complete instructions for the use of Kodak Fluorescent Water Colors are printed on the inside of the covers of the

## Graphic Arts Sales Division



# FLUORESCENCE PROCESS

## For COLOR CORRECTION

attractive wooden boxes in which the sets of jars and tubes are packed. In addition, any color can be obtained separately.

### THE KODAGRAPH COPYBOARD HOOD AND KODAGRAPH COPYBOARD FILTER HOLDERS

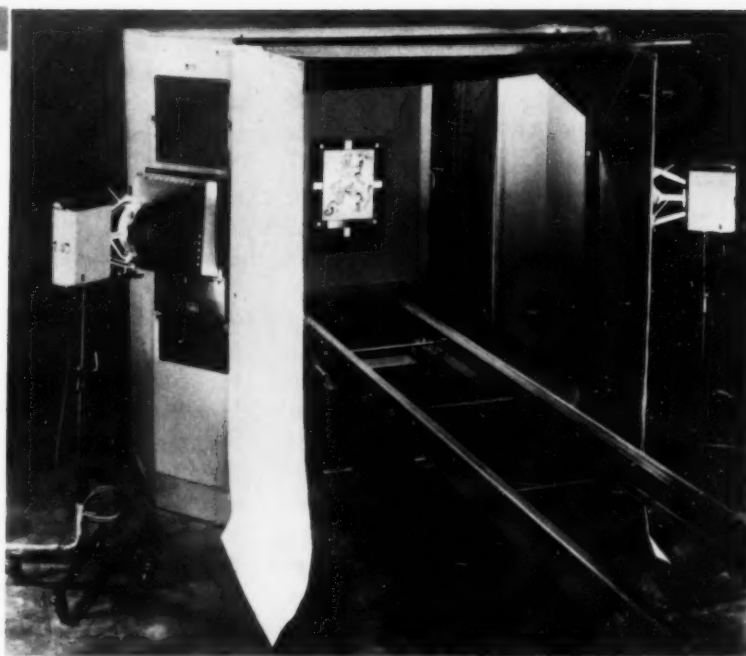
Special equipment is provided for correctly illuminating the sketches and wash drawings made with Kodak Fluorescent Water Colors. The Kodagraph Copyboard Hood excludes extraneous white light, and the Filter Holders, including the special filters, provide the correctly balanced ultraviolet, blue-violet, and green light essential to the process. Standard single- or double-deck arc lamps are used.

Each Kodagraph Filter Holder includes the ultraviolet filters and a set of compensating yellow and magenta filters with which is obtained the correct balance of ultraviolet, blue-violet, and green light. The holders also include a diffusing glass panel which is used between the arc lamp and the filters.

Both the "red" and yellow negatives are made with the same lighting combination. Straight white light is used for the "blue" negative and the black printer.

The Kodagraph Copyboard Hood is easily moved about as it is mounted on rubber-tired wheels. It includes a light socket for adequate illumination of the copyboard, while the copy, register marks, gray scales, and color patches are being arranged and focus adjusted.

Complete instructions are supplied, covering not only the assembly of the Hood, Filter Holders, and Filters, but their adjustment and operation as well.



● The Kodagraph Copyboard Hood and the Kodagraph Copyboard Filter Holders in use with single-deck arc lamps.

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#### Kodak Fluorescent Water Colors

LIST PRICE

Set of 18 ¼-ounce tubes.....	\$25.00
Single tube, ¼-ounce, of any color.....	1.50
Set of 18 1-ounce jars.....	75.00
Single jar, 1-ounce, of any color.....	4.50

#### Kodagraph Copyboard Hood

For use with Kodak Fluorescent Water Colors

For double-deck arcs .....	\$550.00
For single-deck arcs .....	350.00

*Prices subject to change without notice.*

Ask the Eastman demonstrator for further details, and order from your Graphic Arts dealer.

**NOTE:** The Kodak Fluorescence Process is not a drop-out highlight process.

## EASTMAN KODAK COMPANY, Rochester, N. Y.

the thickness of the coatings and the speed of the whirler must be varied to suit the difference between the grain of the zinc plate and the steel plate.

There is one method that has been tried with varying success; it consists of putting a thin zinc coating on a steel plate by electrolysis. The plate is then given an albumen coating, exposed, inked, and developed in the usual manner; then the zinc coating which is around the image is etched away with acetic acid down to the bare steel. The main difficulties with this process are: first, the zinc coating must be of even thickness all over the plate; the second is that unless the zinc on the bare portions of the plate are completely etched down to the steel there will be trouble with the plate when it gets on the press.

Steel plates do not crack along the grippers as easily as zinc or aluminum plates, but they have a tendency for the ends to buckle up on the side of the plate which has been grained. They must be rolled to bend in the opposite direction or be forced back with weights before giving them to the pressman or he will have difficulty clamping them on the plate cylinder. Steel plates can be run with a very low pH. It is even possible in some cases to run without acid in the fountain. As the steel plate seems to have an affinity for water, it does not require so much dampening and it is not necessary to gum it while the press is stopped. The fountain etch that is recommended for zinc plates by the Lithographic Technical Foundation is satisfactory for steel.

Steel plates with work on them that are to be held for later printing can be stored and kept better than zinc or aluminum. Some lithographers have been very successful with steel plates that are high-etched; that is: the image is 1/1000th of an inch higher than the surface of the plate which has been etched away that much. The sensitized coating that is used for this is dichromated glue, the same as is used by photo-engravers. A plate made this way can be run dry after the initial dampening. These plates are good

for very long runs although the blanket will be quite heavily embossed at the end of the run.

Stainless steel's resistance to corrosion and oxidation is particularly important for the plate maker and offset pressman. Directly after being grained plates may be stored for long periods till required, and there is no special necessity for having them gummed or counter-etched to resist oxidation. Stainless steel resists corrosion by ordinary clean atmospheres very well, and plates may be coated directly without chemical cleaning, except for water washing followed occasionally by light scrubbing with a bristle brush. For most purposes hot and cold water flushes will suffice.

From the offset pressman's angle, stainless steel's high resistance to corrosion is important because it lessens considerably the probability that his inks will be contaminated with metal corrosion products from plate deterioration. Again, by avoiding corrosion or oxidation of the base plate, stainless steel eliminates the serious element of film damage from the bottom side, with its consequent press shut-down and costly delay while another plate is made ready. Steel is not subject to serious corrosion by any of the reagents normally associated with lithography, with the exceptions of iron perchloride and other chemicals required to cut the plate surface for deep-etch work.

**A**NOTHER property of steel is its relatively high affinity for water. This property of "wettability," or water-retentiveness, is difficult to evaluate other than qualitatively, though it does appear to depend in part at least on two factors inherent with the plate material. First requirement for water attraction is a clean surface, free of grease, oxide, and corrosion products, and capable of remaining so during long exposures on the press. The second requirement is for a surface with the greatest possible exposed area, roughened or broken up in a way to provide miniature hills and valleys for trapping and holding moisture. These same roughened surfaces when properly prepared by rolling-up with ink-attracting gums and resins function

in turn to hold the inks in their respective areas, and again to provide the desired bases for light-hardened colloid printing images.

The mechanical properties of steel together with its slight tendency to work-harden or stiffen under such action as that given on the graining table, make it necessary to add one step to those normally required for graining the softer zinc plates. After graining under the usual methods of control the finished steel plate will tend to curl, or bow, from the grained side, principally along its length, and to an extent which makes it difficult to accommodate the plate readily on the coating machine, exposure frame, and press. This curling tendency may be taken care of rather simply, however, through the expedient of applying curl or bow in the opposite direction prior to placing the plate on the graining table. Wide variations in plate size and thickness make it difficult to give any hard and fast rule to follow, but experience indicates that with plates measuring perhaps 40 in. x 50 in. x 0.018 in., an elliptical bow to about one-sixth plate length from the horizontal, will suffice to assure the plate's flatness after graining.

Curling or bowing steel plates for graining is accomplished readily through passage in a roller-leveler. This is essentially a sheet rolling device made up with an odd number of small rolls, staggered so as to develop curl in sheets passed through the rollers either along their lengths or sideways. Similar results may be accomplished with discarded ink rolls, wood rollers, or through other means at the disposal of the plate-maker, contingent on his own skill and shop limitations. Maintenance of clean and smooth roller and work surfaces is essential in these operations so as not to induce surface scratches or blemishes. Since work-hardening on the graining table gives a curl up from the grained side this added working must go the opposite way, with the selected plate side always uppermost, and the ends higher than the plate center.

Steel plates are best grained with steel marbles and hard abrasive. The

*(Turn to page 41)*

# Defense and Lithography

Please bear in mind that the defense picture is a rapidly changing one and that this is a monthly report. The facts reported herein represent the latest available information at the time of going to press. They may change overnight.

## Priorities Critical List

THE Priorities Critical List, compiled by the Office of Production Management, and revised monthly, lists a series of raw materials and items of finished equipment essential to the national defense. Available supplies of items on the list may at any time be requisitioned in whole or in part for such use. Firms requiring stocks of listed materials for use on government contracts must secure preference ratings from The Priorities Committee and supplies will be assigned on the basis of these ratings. Civilian requirements are also to be determined on the basis of preference ratings, after defense requirements have been met. Forms are provided for determination of preference ratings in the various classes.

The list as abstracted below is far from complete. Only those items have been selected from the complete list which in our opinion might be generally in demand by the lithographic industry.

Acetone  
Aluminum and aluminum alloys  
Borax  
Boric Acid  
Calipers, micrometer  
Chromium  
Cobalt  
Formaldehyde  
Iron and steel products  
Lenses requiring grinding

Machines: addressing and duplicating, all types, including type, platemaking equipment

Mercury

Methanol

Monel metal

Nickel: alloy steel

Non-ferrous alloys, all types

Phenol

Plates, multilith, zinc or aluminum

Potassium permanganate

Reproduction equipment: map

Rubber, synthetic

Steel, semi-finished, finished and fabricated, including alloys

Thermometers, industrial

Tin

Zinc

## General Comment

THERE was much excitement last month over the letter issued by the Office of Production Management announcing a priority rating of B-3 on stainless steel for lithographic plates (See page 25 of the July issue for copy of the letter). Some thought that the letter was a gentle hint that the lithographic industry had better turn to stainless steel and forget about zinc. The official slant on the lithographic plate situation, in other words. This was cause for some concern since it would mean a complete readjustment of production procedure in the majority of lithographic plants, which have never used stainless steel. Also

the letter seemed to imply that so far as official Washington was concerned the plate situation in the litho industry had been solved. "So you're having trouble getting metal for plates, eh? Well, here's some stainless steel. Use it," seemed to be the attitude. This now-we've-settled-everything-for-you tone, whether intentional or not, was especially discouraging since the list of sources together with inventories of stainless steel which accompanied the letter showed that only a very small percentage was right for lithography.

Despite the confusion created, a few calmer minds saw in the letter just as much confusion on the part of the sender. Hence, they went directly to Washington for further elucidation and found that the situation was pretty much as they had surmised. Briefly, it was this: before Washington began to put the screws on civilian consumption a few months back a lot of stainless steel for restaurant and similar use was piled up in warehouses ready for on-order demand. Then came priorities and the idea of using this metal for purposes considered non-essential became distinctly unpopular. In their desire to move this stainless steel out of the warehouse where it was lying idle and would continue to lie idle until a more necessary use for it was thought of, interested factors, the fabricators, in other words, discovered that the lithographic industry enjoyed a fairly good status as an essential industry. They had heard that the lithographic industry had at times used some stainless steel, so they forthwith concluded, without bothering to find out what the specific requirements or experience had been with this metal, that the lithographic market was a good one on which to unload. Hence, the letter. The intention may have been good, albeit somewhat hasty and misinformed. The fact remains, however, as we pointed out when we ran the letter last month, that the lithographic industry is pretty much where it was so far as metal for plates is concerned. There is not much of the stainless steel that'll do for lithography. And that's that.

Of course, as anyone knows who





## it may be dog days but—

that just means it's hotter, is all. Now when you take Alpha Canis Majoris, that old dog-star of a Sirius, and he starts romancing around with Vega, starry-eyed queen of the summer heavens, like he's been doing the past couple of weeks—why it's just bound to get a little sultry and humid, and there's not much we can do about it, as Mark Twain says. Of course, it's none of our affair anyway. If old Sirius wants to cut up it's no skin off our teeth. We'd best be minding our own business.

And that's just what we have been doing, despite the dog-days, here at MODERN LITHOGRAPHY—

minding our own business, and if we may say so, minding some of yours, too. Things have been happening. Washington has announced a "standardization" program for all consumer goods. How this may affect lithography no one knows. But you might want to be thinking about it and see what we have to say about it—in this issue. Too, a graphic arts committee has been formed to work with OPM on paper production problems. Somewhere in this issue there's news about that. Then you'll be interested in reading about the questionnaire we sent out last month to fifty large buyers of lithography. That's discussed in the lead article this month. There's some more significant news this month in our column, "Defense and Lithography." There's an article about stainless steel, which as you know popped up in the news last month. Oh, the heck, there's no sense in telling you everything in this month's issue. You'll discover it all for yourself.

The point is—we're on the job. So much so that we'll wager after you've read this number you'll want to make absolutely certain that you'll get every succeeding one. If your subscription expires this month, by all means renew it *now*!

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reads the papers, the aluminum situation has become worse if anything so far as getting any of the metal for lithography is concerned. The United States has gone into the aluminum business to the extent of 600,000,000 pounds a year. Construction of new plants will raise the aluminum capacity of this country to 1,400,000,000 pounds, more than four times pre-emergency consumption. Nonetheless, as Leon Henderson forcibly pointed out last month, supplies of steel, nickel, zinc, chromite, as well as aluminum, will be inadequate to meet the needs of consumer goods industries. Blame for the shortage was tossed back and forth as a political football all last month, with one of the officials at OPM declaring, of all things, that it was their, OPM's, fault. Of course, this self-excoriating bit of information received scant attention in the news, while Harold Ickes' fiery blast against the Aluminum Company of America was heard around the world. But the blame is neither here nor there. The fact is that there is no aluminum.

A constant search for new supply sources for zinc was reported under way. American Zinc, it was learned, filed locations of 31 new mining claims at Newport, Wash. Domestic zinc suppliers reported that they expected to raise output over the balance of the year, but attainment of the 75,000-ton monthly goal before 1942 was thought highly dubious. Failure of supply to expand in recent months has been a disappointing development. With the severity of the shortage in zinc thus stressed by the slow expansion of domestic output, it was believed that a rise in defense needs over the coming months would make a sharp cut in civilian uses inevitable.

It was reported that there would be no shortage of tin plate for the metal lithographing industry for many months to come, if at all. Tin is being brought into this country as fast as cargo space is available, and stocks are being built up wherever possible. As long as the trade routes are kept open and there is no shipping problem, importers will be able to keep a sufficient supply of the

metal coming into the country, according to most information. On the other hand, Edward R. Stettinius, director of priorities of OPM, told the Truman investigating committee of the Senate that American industries producing goods for civilian consumption face the early prospect of a tremendous adjustment of operations unless the rate of ship sinkings is brought below the level of a year ago. What to believe is problematical.

**D**OMESTIC paper production and imports of all paper grades for the first half of 1941 aggregated 9,510,000 tons, it was estimated. This was despite industry operations at only 93 per cent. This was equivalent to 16,330,000 tons annually, which contrasts with official estimates of domestic production requirements of 16,217,000 tons for the year 1941. Ability of the paper trade to adequately meet combined defense and civilian needs for the full year was emphasized in the report. Consumer fears of a paper shortage should now be definitely allayed, it was asserted, if such doubts had their foundation in talk of inadequate mill capacities. It was pointed out, however, that the period of delivery has in some divisions been extended. That buyer uncertainties will be entirely dispelled was, nevertheless, generally doubted. As the national emergency grows and the defense program accelerates, the possibility of shipping shortages and labor scarcity at mills must be faced. Probability that important curtailment in the use of many chemicals, largely altering paper appearance, will be witnessed over the coming months is another major factor influencing buyers to stock up as heavily as mills will permit.

An overall committee composed of representatives of the graphic arts, paper converters and the pulp and paper industry was in the process of being formed as we went to press which, together with an OPM commodity section, will make all the necessary decisions pertaining to production, priorities and purchases of pulp and paper. The reduction in the amount of chlorine used in the

manufacture of paper was one of the subjects slated for early discussion by the committee.

One other lithographic material, now on the critical priorities list, may be commented on: namely, acetone. At the moment this is somewhat scarce, but it is said that this condition should be relieved about August 15 due to new production becoming available.

## Stainless Steel

(from page 38)

questions of marble and abrasive size, time and table speeds again must depend largely on the operator's skill and judgment, and, with the knowledge that steel is a harder material, the desired grain characteristics may be developed after a minimum of experiment. After steel plates are grained they should be washed in hot or cold running water, dried, and stored for later use. They may be counter-etched with chromic acid, trisodium phosphate, or other alkaline salt cleansers to clean away surface grease or soil marks, but this usually is unnecessary where they go directly to the coating machine from the graining table.

Steps necessary in preparing steel plates for the press differ not at all from those in common use with zinc, and the experimental work in several different plants indicates that steel plates are readily adapted to the albumen, gelatin, deep-etch, and other special processes.

**W**HEN first working with steel plates the offset pressman may find them a little difficult to handle because of their added stiffness, but this extends perhaps only to the first two or three days, after which their handling becomes mere routine.

With many processes steel plates may be run virtually dry, using tap water alone as the fountain solution. Chemical additions are not generally required to improve the wetting or corrosion resisting properties of steel plates, and where they do come into use their function has to do principally with controlling scum and ink contamination. Mild solutions of phosphoric and chromic acids, to-

gether or separately, with gum arabic make satisfactory fountain etches for steel. To meet those special requirements covered by paper and ink variations some experiments will be indicated for best pH control with each class of work. Steel has almost complete resistance to corrosion by lithographic inks, which minimizes ink contamination while the press runs, and, with the lessened water requirements, is very useful in keeping ink dilution to the desired minimum.

An interesting application of steel's high resistance to corrosion by strong alkalies comes about in a process for reclaiming chemically used albumen and gelatin plates. Experience bears out that caustic soda solutions in strengths to about 30 per cent by weight at room temperature will serve adequately to dissolve the hardened resists completely, and at the same time have no significant action on the grain characteristics of the steel plate. Soda ash or trisodium phosphate solutions in 5 per cent concentration at 150° F., or 18 per cent caustic potash at room temperature, are said to do equally as well. Rinsing in weak acetic acid solution prior to the alkali treatment helps materially to clean off the ink and grease residues, and has been used as an added step to insure the best plate cleanliness. These washing treatments are not destructive to the plate, nor to its grain, and their use may be indicated where small plates used for short runs must be reclaimed at moderate cost. The exact number of times steel plates may be reclaimed chemically between grainings should be checked by experience, and will depend principally on type and quality of the work to be printed. With the deep-etch and similar processes giving hard wear to the plate surface a full regaining after each use should be specified.

—Don Nicholson

The fifteenth annual convention of the Advertising Typographers Association of America will be held September 15, 16, and 17, at The Greenbrier, White Sulphur Springs, W. Va., it was announced last month.

# Offset paper at work

Another in the series on offset paper by Mr. Wheelwright, author of "Printing Papers," a definitive work on papers of all types for the Graphic Arts, recently published by University of Chicago Press.

BY WILLIAM BOND WHEELWRIGHT

**P**Riority"—the warning-word during a period of emergency, is reaching out to embrace paper. In embattled England, dependent upon imported raw materials, paper restrictions are already most severe. The exclusion of imported Scandinavian pulps has so far affected the United States more from the quality than the quantity angle. Readjustments and substitutions have become necessary, production has been stepped up, but it is not keeping pace with the fast growing demand. Costs are advancing and will continue to advance and the need for economy is becoming more and more imperative.

For many years paper has been sold in most grades on the rather illogical basis of price per pound rather than price per sheet. Buyers have attempted to beat down fractionally the price per pound, but in a sellers' market this road to economy is closed, and the only remaining route to economy is to figure out a means of reducing the cost per sheet.

In order to do this effectively we must change certain habits of thought. Our calculations must be made on a three dimensional basis, rather than upon two dimensions and ream weight. Every job demands a given sheet size, there is no getting away

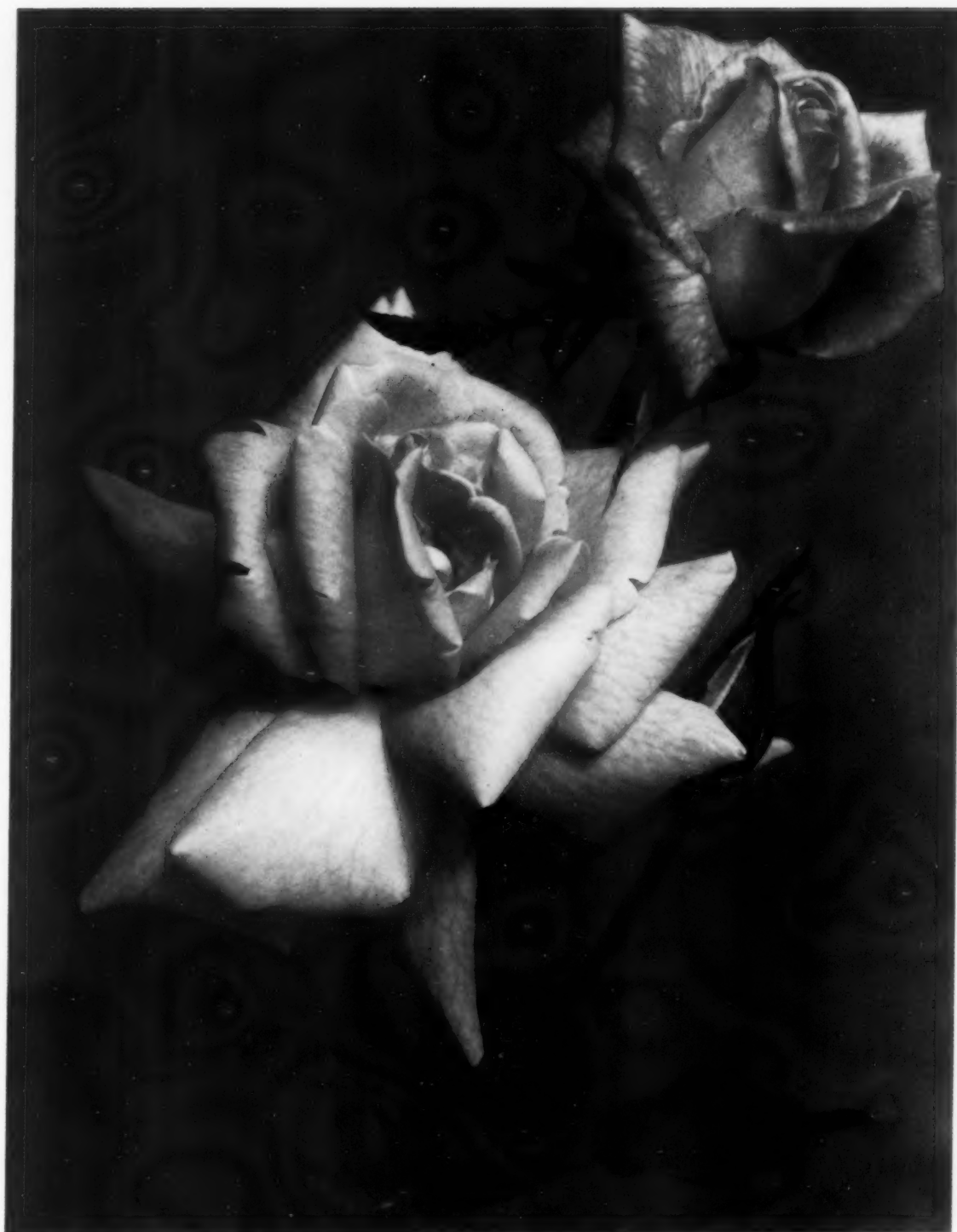
from that, but the third dimension—thickness is variable to a considerable degree and has a definite bearing on ream weight. In every sheet of a given finish, the basic weight varies in direct proportion to its bulk. The lower the finish the bulkier and lighter the sheet. Within reasonable limits this fact offers the offset lithographer an advantage in work involving halftone illustrations because he can get good results on relatively rough finishes of paper.

Economy will result from giving more thought to paper's third dimension—thickness. In planning a job, ask yourself how thick should

Basic Weight	Bulk in points per four sheets		
	E.F.	Text	Eggshell
50	11	16½	20
60	13½	20	24
70	16	23	28½
80	18	26½	32¼

MODERN LITHOGRAPHY





# WARREN'S Cumberland Offset

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## WOVE & SPECIAL FINISHES

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	Lathrop Paper Company, Inc.
NEW YORK CITY	{ The Alling & Cory Company
	{ J. E. Linde Paper Company
	{ The Canfield Paper Company
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WALLA WALLA, WASH.	Zellerbach Paper Company
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Better Paper  Better Printing  
Printing Papers

the paper be to satisfy the customer's needs to best advantage, how smooth must it be and how opaque must it be. Then you are in a position to select whatever sheet gives the required bulk, finish, and opacity at the minimum basic weight.

The possibility of economies is evident from glancing at the table of approximate bulks of book papers of typical finishes, which is shown on page 42.

These measurements of bulk must be regarded as approximate since no two mills necessarily produce papers of exactly the same bulking properties. The bulk is expressed in terms of four sheets, because the chance of error is less than if caliper one sheet at a time. It will be noticed that the bulk of a given finish varies almost in direct proportion to basic weight.

It should also be noted, for example, that the 50 lb. eggshell finish bulks more than the 80 lb. English finish, and the 50 lb. text finish slightly more than the 70 lb. E. F. The advantages of selecting paper having good bulking properties, so long as they are satisfactory in other respects is very evident.

The offset printer must bear in mind that the high bulking papers are more porous and more liable to pick or fluff, and before ordering should test for picking, in order to be assured of satisfactory press performance in this respect. It is also true that density derived from calendering, increases the strength to some degree. If three papers made from the same materials were tested for strength by tearing and folding tests, the denser samples of the same basic weights would be the stronger.

Another point to consider in reference to suitability of paper for a given purpose is its "soilability." For catalogs or reference works and school books which receive repeated handling, the smooth finish soils less easily than a rougher finish.

Whenever a medium or a rough finish paper can be employed in place of a high finished, or a coated paper, a sheet of satisfactory bulk can be used at a considerable saving in ream weight. Naturally such savings should not be made at the

expense of other important characteristics which the finished job must possess in order to satisfy the expectations of the customer. But it

Callaway Associates, 210 South St., Boston, have just published "Paper Trade Terms," by William Bond Wheelwright, an illustrated glossary containing 575 definitions, 40 pages, paper bound, price 50c per copy. This is the only illustrated dictionary of paper ever published.

must be evident from what has been said that worth while economies may result from carefully considering paper's third dimension—thickness.

#### **Educators Hear Harry Porter**

H. A. Porter, vice-president in charge of sales, Harris-Seybold-Potter Co., Cleveland, was one of the principal speakers at the annual conference of the National Graphic Arts Educational Association held in Cleveland last month. Mr. Porter spoke on "Up-to-Date Information on Lithography."

Said Mr. Porter, "Lithography's place and function in the business plan has not been generally understood. I believe, however, that this lack of understanding has now given away to a full appreciation of its importance today among buyers of printing. For this reason, I am of the opinion it is a very good thing . . . to evaluate the real objective of the printing departments of our schools and see whether or not they are being used most effectively. It seems to me that they should be informed on several important fundamentals such as: (1) a clear understanding of the differences between the three basic methods of printing—relief, intaglio and planographic; (2) something of the history of lithography; (3) copy preparation; (4) the camera and its importance; (5) the offset plate; (6) the offset press; (7) the advantages of offset lithography; (8) modern trends of lithography; and (9) something of the equipment necessary."

Mr. Porter pointed out that all of

these classifications are covered in detail in a new book just published by Harris-Seybold-Potter called "Your Next Move." He pointed out that the book, which is educational in its purpose, has been supplemented by a second volume called "Planning for Offset," both of which he said were available to teachers of printing.

#### **Weigh Votes on Litho Club Union**

Representatives of the Litho Clubs of Philadelphia, New York and Baltimore met at the Poor Richard Club, in Philadelphia, on August 4 to consider further the idea of a National Litho Club which was suggested late this spring by Al Rossotti, Rossotti Lithograph Co., president of the New York club. The idea first suggested itself to Mr. Rossotti following joint meetings during the past winter of the New York, Philadelphia and Baltimore organizations. In the past month an attempt has been made to gather expressions from members of the various litho organizations to see whether or not they are in favor of the idea. It was to consider the results of the opinion-taking that the meeting was held in Philadelphia on August 4. What was decided on the proposition will be made known in a message by Mr. Rossotti in the near future.

#### **Have Patience!**

Many paper manufacturers say that lithographers are extremely impatient with them these days because orders aren't being filled with the speed they were a year ago. The paper manufacturers state that the lithographer seems to overlook the fact that paper mills are pretty much in the same boat as most litho concerns—scarcity of some materials and slow delivery on others. In addition, the uncertainty of the future, plus the impetus given business by the defense program, has caused heavy buying of paper. Most paper manufacturers are swamped with orders. It is requested that lithographers have a little patience when ordering and realize that everyone is in the same boat as a result of the emergency.



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Consistently good press performance has made Sinclair & Carroll inks the choice of leading lithographers throughout the country. Their good color strength; their ideal lithographing properties and all around reliability at press time live up to your demands and expectations.

From laboratory formulation to finished product, Sinclair & Carroll inks are carefully tested to insure your complete satisfaction on the job.

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Gum Arabic that dissolves in one minute, and is ready for use immediately without filtering.

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Fine, brilliant crystals that dissolve almost instantly to give a clear, sparkling solution, free of any sediment or suspended particles.

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## IN AND ABOUT THE TRADE

### National Press Expands

National Press, Inc., Chicago, has leased additional space in the building at 108 to 128 North Jefferson St., giving the concern a total of 60,000 square feet of operating space. Another 4,000 square feet has been leased in an adjacent building at 549 West Randolph St., for executive offices. Organized ten years ago with eleven employees, the company payroll now numbers 290. Two years ago an offset department was started with one press, and last fall two more offset presses were added.

### Tax on Billboards

Of the three new Federal taxes voted by the Ways and Means Committee last month for inclusion in the \$3,529,200,000 tax measure introduced in the House of Representatives July 25, that on billboards would bring in the greatest amount. The provision was that a tax of \$5 a year would be levied on operators of billboards of 300 square feet or less; \$8 a year on billboards of 300 to 600 square feet, and \$11 a year on those of more than 600 square feet.

### Bookbinding Costs Rise

The Bookbinders & Rulers Association of New York has issued a statement advising printers, lithographers and all others who use the services of a bookbinder that a general increase in the price of bookbinding has been made necessary. The association points out that increases of 25% to 75% in the cost of wire, board, kraft, glue, etc., have necessitated the higher price increases.

### United Autographic Expands

United Autographic Register Co., Chicago, has built an addition to its plant at 5000 South California Ave., containing 21,000 square feet of floor space. The new structure represents an investment of \$70,000. The company uses both offset and letterpress

for manufacture of its line of continuous forms, registers and other business stationery.

### Newspaper Installs Offset

Newsfoto Publishing Co., publisher of a tabloid weekly newspaper, San Angelo, Texas, recently installed a new Webendorfer offset rotary press. The new press takes a plate 24" x 35" and is said to have a production speed of from 7 to 16 thousand papers per hour.

### Strobridge Leaves for Army Duty

James G. Strobridge, vice-president of the Strobridge Lithographing Co., New York, received a leave of absence last month and reported to the Engineer Reproduction Plant, Army War College, Washington, D. C., for active duty. Mr. Strobridge is a Major in the Engineer Reserve Corps.

### To Greet NAPL

Offset printers of Cincinnati have announced a reception and registration committee for the annual con-

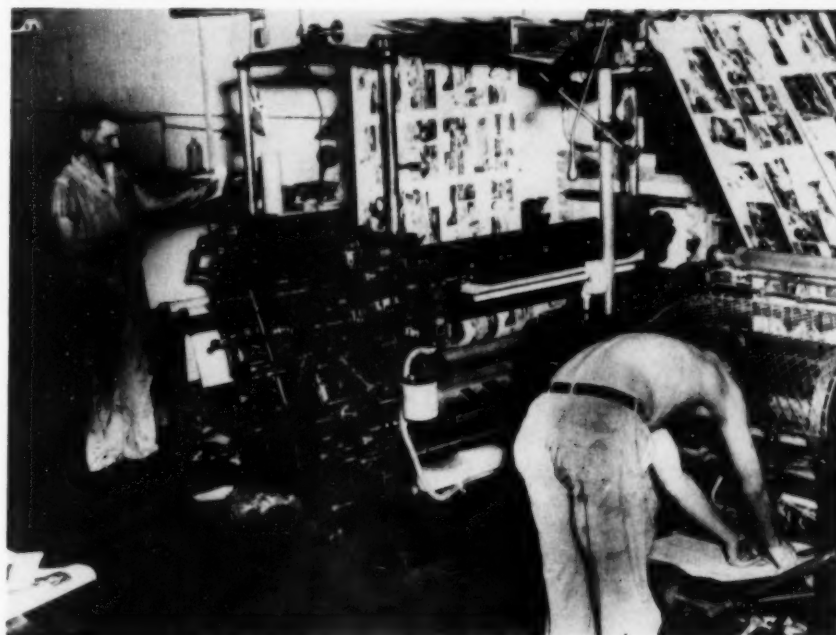
vention of the National Association of Photo-Lithographers to be held in Cincinnati on September 18-20. On the committee are: Harry E. Brinkman, Foto-Lith, Inc.; Colter Rule, Champion Paper & Fibre Co.; Charles W. Westerman, Westerman Print Co.; Ed Tiemeyer, Mailway Advertising Co.

The Miami Valley Lithographers Association also has announced a committee of official greeters as follows: William H. Merten, president Strobridge Lithographing Co.; Thomas Stevenson, Stevenson Photo Color-Separation Co.; Oliver W. Perin, Gibson & Perin Co.; Oliver Jenkins, Rainbow Lithographing Co.; John T. Bell, Reynolds & Reynolds Co., Dayton, Ohio.

### S. & V. Buys O'Brien Ink

Sinclair & Valentine Co., manufacturer of printing and lithographic inks, New York, has announced the purchase of the O'Brien Printing Ink Co., Dayton, O. O. G. Fricke, manager of the S. & V. Dayton branch, has been placed in charge of the O'Brien

Newsfoto Publishing Co., San Angelo, Tex., publishers of the weekly offset newsheet **NEWSFOTO**, recently celebrated the 1st birthday of the paper by publishing a special anniversary number. Here's the anniversary edition coming off the press.





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plant and will work out plans for a merger of the two units. B. G. O'Brien, head of the company, has been appointed to a position in the S. & V. sales department and will divide his time between Dayton and New York. D. E. O'Brien, former vice-president and treasurer, has joined the Associated Ink Co., west coast representative of Sinclair & Valentine Co.

#### Lithographer's Son Honored

Robert Borre, 18-year old son of Anthony Borre, of Magill-Weinsheimer Company, Chicago, recently won a scholarship in engineering at Eureka College, Eureka, Ill. Mr. Borre, Sr., is assistant to President A. J. Weinsheimer of the Chicago litho firm.

#### Elect Harry Affelder

Harry F. Affelder, treasurer and general manager of the Wolf Envelope Co., Cleveland, and president of the Wolf-Detroit Envelope Co., was elected president of the Envelope Manufacturers' Association of America at the annual meeting held at Wawasee, Ind., last month.

#### Chicago School May Close

The Chicago School of Printing and Lithography faces the possibility of being forced to close down from lack of student patronage, Harold E. Sanger, director of the institution, stated last month. Up to July 15 less than 150 inquiries about courses had been received from prospective students, this number being several hundred per cent less than the normal number of such inquiries at that time of the year. There is no waiting list this year and vacancies still exist, Mr. Sanger said, in the September class enrollment lists.

At the National Graphic Arts Education Guild convention in Cleveland Mr. Sanger learned that other printing trade schools face the same situation with prospects of closing. Instructors agreed, he said, that it is caused largely because youths who would ordinarily be seeking training in trade schools are being lured away by the high wages paid in defense industries.

Mr. Sanger charged that, although



Doty Lithograph Co., Fort Wayne, Ind., had a customer recently who wanted an inexpensive direct mail piece lithographed but did not want to have commercial photographs made. So Doty's camera man reproduced the shoes directly from the object with a 24-inch Standard Valette Camera. This was accomplished by leaving the copy board in the flat position and then placing the shoes on the edge of the copy board with a white cardboard for background and photographing through the halftone screen. The reproduction above is from the negatives made by Doty's camera man.

they are directly affected, printing industry executives are indifferent to the situation. Employers want trained men, he said, and look to the educational institutions to provide the supply. Yet, at the same time, he asserted, they fail to support the schools where such training must be given. Something will have to be done soon, he declared, to get young boys interested in the printing trade as a lifework or the industry will find itself shortly without the necessary supply of newly trained craftsmen.

#### Champion Net Up

President Logan G. Thomson, Champion Paper & Fibre Co., Hamilton, Ohio, in his annual report on July 11 reported that sales and tonnage produced were the largest in the company's 48-year history. Consolidated net income for the fiscal year ended April 27 was \$2,379,660 after all charges. This was equal to \$3.37 a share on common stock outstanding. The previous year's net income was \$1,731,938, equivalent to \$2.24 per common stock share then earned.

#### R. Hoe Wins Long Litigation

A suit brought by minority stockholders of R. Hoe & Co., press manufacturers, New York, to recover \$3,000,000 from the Guaranty Trust Company of New York and others in connection with various actions by the officers, directors and bankers of R. Hoe & Co. during the period the company was in financial difficulties, was dismissed last month. The suit

was started in 1936 and required seven weeks for trial. The action alleged a conspiracy by the defendants to cause R. Hoe to be put unnecessarily into a judicial receivership. The defendant officers were exonerated of any malevolent design or impropriety by the Supreme Court, opinion holding that the receivership operated to the advantage of the company.

#### Adams Heads Roberts & Porter

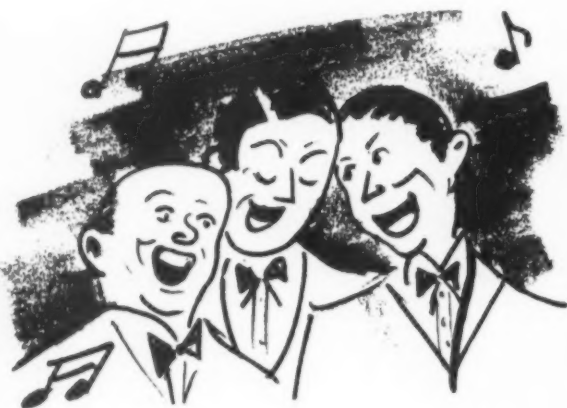
Hugh R. Adams, Jr., was elected president of Roberts & Porter, Inc., lithographic suppliers, Chicago, at a recent meeting of the board of directors. He succeeds Charles S. Roberts who was named chairman of the board. Other officers elected were Harry H. Grandt, vice-president; H. W. Surrey, treasurer and Sam Rothermel, secretary.

#### New Litho Club in Baltimore

A new organization open to all engaged in the manufacture of lithography was formed in Baltimore recently under the name of the Lithographic Technical Club.

Gilbert C. Fisher, of the faculty, Ottmar Mergenthaler School of Printing, has been elected president. Other officers are John Lavin, Continental Can Co., vice-president; Thomas Keyes, Standard Oil Co., secretary, and George Happ, Owens-Illinois Can Co., treasurer.

The Lithographic Technical Club will meet at the Longfellow Hotel the first Thursday of each month. Membership now numbers about 40.



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Heretofore many lithographers have prepared  
 these or similar materials for their own use. In  
 response to an increasing demand, however,  
 they are now available in packaged form,  
 ready-to-use, through the following distributors.  
 Demonstrations will be arranged in the principal  
 lithographic centers.

*Distributed by*  
**The California Ink Company, Inc.**

**The Fuchs & Lang Mfg. Co.**  
 (Division of General Printing Ink Corp.)

**International Printing Ink**  
 (Division of Interchemical Corp.)

**Sinclair & Valentine Company**  
**Sinclair & Valentine Company of Canada**

### **To Open New Exhibit Rooms**

E. G. Ryan & Co., Chicago, is planning an open-house reception next month to introduce to the trade its new 10th floor exhibition room at 727 South Dearborn St. The American Type Founders' line of Webendorfer-Wills offset presses and other equipment for which the Ryan Company is mid-western agent will be displayed. A sink, whirler, vacuum frame and all accessories for plate production have been hooked up for actual demonstrations. Rearrangement of the floor layout has made possible enlarged working quarters for Mr. Ryan and his office staff.

### **Millicent Davis Marries**

Mrs. James Croke announced last month the marriage of her daughter, Millicent Davis, to Joel E. Harrell. Mrs. Davis will continue in her present capacity as executive treasurer and sales manager of the Allan B. Croke Co., Boston, and there will be no change in administrative personnel or policies, it was learned.

### **Rapid Adds to Sales Staff**

Rapid Roller Co., Chicago, has announced the addition of A. W. Ballantyne, J. W. Colton, and F. S. Barr to its sales staff. The three men have each had from twenty to twenty-five years of practical experience in the graphic arts industry and are well-known figures in the printing and lithographic supply field.

### **Install Harris Presses**

Three Chicago lithographing companies installed new Harris offset presses during July. Edwards & Deutsch Lithographing Co. and Photopress, Inc., each put in a 42 x 58 L-S-K model, and Curt Teich & Co., Inc., added a 42 x 58 4-color L-S-M model. Sales were made through the Chicago office of Harris-Seybold-Potter Co.

### **Ideal Adds More Space**

Ideal Roller & Mfg. Co., Chicago, has constructed a second story addition, containing 2,000 square feet of floor space, to its factory building at 2512 West 24th St. Removal of the research laboratory to this section

has released floor space in the manufacturing department needed to meet increasing demand for production of printers', lithographers', and industrial rollers.

### **Progress Honors Oldest Employees**

Service buttons were presented to 127 employees and executives of the Progress Lithographing Company, Reading, Ohio, last month. Presentations were made by Secretary-Treasurer Sidney E. Miller. Oldest in point of service was E. L. Miller, president of Nivison-Weiskopf Co., a director of the Progress Company, who received a 50-year button. Second, with 45 years, was Ben F. Klein, vice-president. Third was Oscar Hausser with 40 years of service. Matthew Maurer, William Grote and Frank Gilgenbach, were fourth with 35 years each.

### **Appoints Farmer and Criswell**

Ralph C. Coxhead Corp., manufacturer of the Vari-Typer Composing Machine, New York, has announced the appointment of G. James Farmer as general sales manager and the election of William T. Criswell as a vice-president of the corporation. Mr. Farmer has been with the company for six years. Mr. Criswell, who has been connected with Coxhead for twenty years, was largely responsible for the development of the New York sales department.

### **Promotes Good Will with Stamps**

I. S. Berlin Printing & Lithographing Co., Chicago, is conducting a good will promotional campaign which is tied in with the national defense effort. Newspaper publicity has attracted widespread attention to the promotion. To several thousand persons throughout the country the company has mailed one of the defense savings stamp albums produced by its lithographing department for the Government Printing Office. Each album contains a 25-cent stamp and a letter from President I. S. Berlin urging the recipient to "start on a systematic savings plan and help your government with its rearmament program."

Production of the 20,000,000 lith-

ographed albums was at the rate of 1,000,000 a day. Nearly twenty carloads of special lithographed paper were required to fill the order and three tons of steel wire were used for stitching the 16-page booklets.

### **Hennegan Employees Picnic**

Employees of the Hennegan Company, Cincinnati litho firm, together with their families held their annual outing August 16. Over 350 picnickers journeyed to Ash Grove, near Cincinnati, in motor cars decorated with banners and balloons. The police department provided a motorcycle escort to the city limits. A program of athletic events with a long list of prizes under the direction of Pete Heberholt of the Cincinnati Recreation Department provided most of the fun. A ball game between the "Ink Eaters" and their hereditary enemies, the "Set-offers," with Al Geverts and Cliff Hebbler, respectively, as captains was the main athletic event. The game was a resumption of the yearly feud and fight for the traditional company cup. Ben Ott was chairman of the outing committee. He was assisted by Ben Beck, Morris Frey, Al Geverts, Josephine Gassman, Franklin Koenig and Bob Morsch.

### **Chicago Lithos Hold Outing**

Chicago lithographers, together with their families enjoyed the 11th annual basket picnic of the Lithographers Club of Chicago last month, held as usual, at "The Oaks," popular recreation spot. Over 500 attended. Base ball games, races and other contests were held. A popular orchestra furnished music for the evening dance in the park pavilion.

### **Chicagoans See Living Litho Film**

"Living Lithography," the three-reel motion picture produced by Lithographers National Association, was shown at a sales conference of executives and salesmen of General Outdoor Advertising Co., in Chicago last month. The film was obtained from L. N. A.'s Chicago office, where George Benton, manager, announced its availability for other organizations interested in the graphic arts.



## Editor's Correspondence

Mr. Sanger points to the following letter which he received recently as an example of the attitude of a great many young men these days regarding the printing industry.

Mr. Harold E. Sanger  
Chicago School of Printing & Lithography  
Chicago, Illinois

My dear Mr. Sanger:

Every once in a while you read something that is so ridiculous and hypocritical, that it compels you to write; expounding not theories, but actual experience.

"Printing is a Grand Old Trade." Ha! Ha! Do you honestly believe that? As an advocate of apprentice training, please read what *youth* has to say on that matter!

Not merely a graduate, but with highest, yes,—highest honors, from a five-year printing course, let me state my experience and training! Printing mathematics, copy fitting, estimating, printing chemistry and physics, typographical design; active operation of the Ludlow, Monotype, Linotype, Kelly press, Miehle press, C & P and Golding job presses, Kluge automatic press, 32" and 42" cutters, stitchers, Barom folding machine, stone work, imposition, and a great deal of hand composition.

Upon graduating, I was appointed to a three-year term as temporary teacher (mech. asst.) in the printing department of a Boston Public School! Summers as a hotel printer (in charge), at a resort. Afternoons (during school years) running a job press and setting type! Evenings, attending classes at Boston University for advertising; Harvard and Mass. Art School for art; Mass. Institute of Technology for drafting and photography; Kluge school for presswork; Advertising Club of Boston for layout and design! Impressive, isn't it?

And then, I became interested in Lithography! I banged on doors until finally a shop in Boston took me in for a few hours, evenings, as general helper—press, plates and camera. I resigned my school position (4 months short of my term) to become stripper in a plant that closed down 15 weeks later! I *really* studied, evenings, from your own I. H. Sayre's book, which I bought along with the Lithographer's Manual and a two-year subscription to Modern Lithography. I studied hard and learned a great deal, but Mr. Sanger, I've "only had 15 weeks of *actual experience*" as a stripper! The irony of it all! The blindness of the employers to my future possibilities and assets!

I've been out of work now for *eight weeks*! Look for a job? You'd be surprised if you knew how really hard I looked! I even tried to be a litho salesman, but 10% isn't enough money for me, as the sole

### Offset Paper Price Advances

Offset paper stocks have undergone several successive advances in price recently and many mills are heavily booked for forward shipments. In some cases this has resulted in mills refusing firm quotations on paper orders and placing them on a basis of price prevailing at time of delivery. Restrictions placed by the OPM on use of chlorine by the paper industry, coupled with the buying wave, may intensify the shortages in certain paper stocks.

support of my parents! How old am I? Just 22—in the prime of life.

But now, after 8 years of intensive training and teaching and studying, I reluctantly admit *defeat*! I know that's bad!—but—I now have the opportunity of becoming a welder, of all things, and get paid while I learn! Could you tell me where I'd make \$35.00 a week in the printing trade after six months training? Well, welding offers just that!

My purpose in writing?—Don't please encourage others to follow this trade. It gets in your blood and you can't "shake off" its effect! My mind, yes, even my heart is *with* and in the printing trade, but Ma & Pa, and yours truly have to *eat*!

Extremely sincere,  
I. E. KAHN

Boston, Mass.

Mr. Sanger's reply follows, in part:

Mr. I. E. Kahn  
56 Intervale Street  
Boston (Roxbury), Mass.  
Dear Mr. Kahn:

Printing is a grand old trade.

Yes sir, Mr. Kahn, I really believe in that statement, honestly and wholeheartedly. I have never thought otherwise since December 10, 1914. Of course, by the time I was your age I had put in eleven continuous years of part-time and full-time work in the printing trade. Starting as a 7th grade youngster, I naturally had no idealistic motive in deciding to be a printer at that time. The job was available . . . I took it. I worked at it and found it to be all that any "kid" of that age could want in a job. Nothing very thrilling and awe inspiring in the way of employment, but it was fun and it did pay well. It has been fun ever since then and it has always paid well.

During the last World War many of my friends left the jobs they were working on to accept employment with the various companies making war materials (they were not called defense industries then). Naturally they made more money per hour and were able to work more hours per week than I was able to. The war, of course, could not last forever and when the world was again at peace, these same

friends of mine found a surplus in the war material labor department . . . found themselves to be a part of that surplus with the result that the extra money they had earned during the lush period had to be used to take care of their idle time when they found themselves out of a job. Believe it or not, Mr. Kahn, one or two of those friends of mine have had no real good jobs from that time until they were again fortunate enough to secure well-paying jobs in the present defense industrial set-up. In the meantime I had never known a day of idleness.

In 1927, I made the step that you did . . . decided to teach others about the grand old trade that had been so kind to me. Then followed 12 years of teaching in the Chicago Public Schools, ranging from junior high and senior high schools, and culminating in the large well-known Washburne Trade School in this city.

In 1939, I left Washburne to take over the directorship of the Chicago School of Printing and Lithography. So much for my personal history, except to say that I am not an unusual character. The opportunities presented to me were available for anyone and everyone.

It bespeaks well of your foresight to read of all the training that you have had both in School and on the job. Three years of teaching, starting at the ripe old age of nineteen, hasn't given you a powerful amount of adult experience in all of the many phases of the printing craft that you mention in your letter, but nevertheless these should still enable you to equal the offer of the welding industry.

I could write page after page giving the case histories of boys who have taken our regular 12-week course in Camera Work and Platemaking or in Offset Press work telling you of the remarkable success they have had in obtaining employment. Work on jobs within a short time paid far in excess of \$35.00 per week. These were not boys and young men who had years of printing training before taking up lithography. They were the "butcher, baker, and candlestick maker" who left established jobs in an attempt to get something better. Mr. Kahn, they did get something better and their present day position in life bears out the wisdom of their judgment.

In my next letter to you, I shall give you the names and addresses of some of our former students who at the present time are working in or near Boston. I want you to contact them and find out what they have done and what they are doing and have them tell you of the benefits derived from studying at the Chicago School of Printing and Lithography.

Sincerely yours,

CHICAGO SCHOOL OF PRINTING  
& LITHOGRAPHY  
HAROLD E. SANGER

Director

MODERN LITHOGRAPHY



Illustration by Stevens Gross Studios, Inc.


Courtesy of Pittsburgh Plate Glass Co.

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ESTABLISHED 1906



*The illustration*  
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OF CHICAGO  
*from original plates made by*  
KNOP & BRAUER, INC.  
OF MILWAUKEE  
*by the Dot Etch Method on film furnished by the*  
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OF ST. LOUIS  
*and lithographed from deep etch press plates in 4 colors*



## NEW EQUIPMENT AND BULLETINS

### Introduce Dry Sprayer

H & H Products Co., Chicago, has just announced a new dry sprayer for the lithographic press. According to the company, the new sprayer prevents sheets from sticking together and eliminates slip-sheeting. The new sprayer is operated by means of a direct air stream which is projected into a cylindrical powder chamber where it is broken by an adjustable air foil. This tubular air foil increases or decreases the amount of air confusion within the air chamber. The movement of the air is somewhat cyclonic, creating a vacuum. Since the heads of the sprayer are the only outlet through which outside pressure can be equalized, the dusting medium is sucked, rather than blown, upon the sheet. The spray will not cloud up the pressroom since it is never more than eight inches from its point of contact with the sheet. A harmless vegetable powder is used as a spray.

### LTF Issues Chemical Catalog

The Lithographic Technical Foundation, New York, has just issued a catalog describing the lithographic chemicals now being manufactured by Coleman & Bell Co., Cincinnati, under supervision of the Foundation's research laboratory. Brief instructions are given for use of the various chemicals, and the deep-etch and albumin platemaking processes are briefly outlined. A separate price list covering the LTF chemicals is also being distributed.

### H-S-P Booklet Explains Offset

"Your Next Move" is the title of a handsome lithographed booklet just issued by Harris-Seybold-Potter Co., Cleveland, the purpose of which is to supply fundamental facts about offset lithography and demonstrate the many and varied applications of the process. The booklet briefly describes in non-technical language the three basic methods of printing and

then goes into a detailed step-by-step explanation of the offset process. Separate sections are devoted to the camera, the offset plate and the offset press. In describing the advantages of offset, emphasis is placed on the adaptability of the process for specific types of work.

The booklet itself is intended as a demonstration of the points set forth in the text. Various paper stocks have been used to show the wide range of paper that is adaptable to offset. Flexibility of layout possible with offset has been utilized to demonstrate this advantage. Line drawing, photograph, Ben Day and wash drawing treatments used for illustrations show how the various art techniques reproduce by offset. Use of color is effectively shown in several double-page spreads of lithographed items such as direct-mail, catalogues and publications, labels, calendars, etc.

Harris-Seybold-Potter has also issued a companion booklet entitled "Planning for Offset" which outlines for the printer the basic facts

and information on which to formulate his plans for installing offset. Some of the helpful items given are: How to Determine Offset Costs; The Offset Investment; Personnel; Examination of the Market; New Business Promotion; and Considerations When Soliciting Offset Printing.

### Introduce Infra-Red Drier

The Infra-Red Equipment Corp. has been established at 1225 W. Washington Boulevard, Chicago, to manufacture a new line of ink drying equipment, it was announced last month. The company has issued a folder describing methods of ink drying with particular emphasis on drying by radiant heat. The company's new Infra-Red Ink Drier is described as consisting of a refractory type gas burner in the shape of a channel equipped with nozzles which are spaced equidistant so as to give one long ribbon of luminescence. This burner is fed with a mixture of gas and air, the air being supplied by a motor blower set and gas obtained from any gas main or bottle gas



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supply. A solenoid valve attached to the running button of the press turns the burner on and off, so that it operates only when the press is actually printing.

#### **Describes Paper Manufacture**

P. H. Glatfelter Co., Spring Grove, Pa., has just issued an informative booklet entitled "Paper and Its Performance." A sequel to "A Short Course in Paper Making," issued in 1939 which described step-by-step operations in the manufacture of paper, the new booklet goes into more detail and analyzes the processes in their relation to the use-requirements of paper. Chapters which should prove particularly helpful to the printer and lithographer are those on ink drying and coverage; the compatibility of paper and ink; printing processes and inks; effect of color, brightness and opacity, physical imperfections; and relation of paper to use-requirements. Copies available without charge to members of the graphic arts industries and at 25c per copy to all others.

#### **Lithographs School Work**

The Brigham Young University Press, Provo, Utah, is turning out some very interesting lithographed work since the installation of a new Harris LSB press last January. Among recent specimens is the handsome 1941 issue of the *Banyan*, the university's yearbook. Containing over 350 pages, the yearbook has been lithographed on a linen-finish stock containing numerous halftone reproductions of better than average quality. The layout of the book is attractive and the use of spots of color on many of the pages adds to its interest. Another attractive piece is the *Wye*, a magazine of literature and art edited by the university's students. Unusual silhouette effects have been achieved in the photographic reproductions, and the reproductions of oil paintings and charcoal drawings are especially good.

#### **New Goes Football Calendar Ready**

Goes Lithographing Co., Chicago, last month completed production of the fifth in its series of annual lithographed football calendars. In the

form of 24-page booklets, 3½ x 8 inches in size, the calendars contain the complete 1941 football schedules for 195 colleges and universities. On the cover page is a calendar for the school year and space is available on which to imprint local advertising. Sales are made to printers who do the imprinting for their customers, chiefly proprietors of sporting goods and clothing stores. Similar calendars covering the big league and college baseball season have also been made by the Goes Company each spring for a number of years.

#### **Record Made on I. B. M. Machine**

Margaret Hamma, Brooklyn, N. Y., set a new world's all-time typing record, using an Electromatic Writing Machine manufactured by International Business Machines Corp., Rochester, N. Y., in the annual International Commercial Schools Contest held at Chicago last month. Miss Hamma achieved a rate of 149 words per minute for one hour of continuous typing. Another Electromatic operator, Helen Sayer, of New York, set new records in the novice event and transcribing machine event. This was the first time that the Electromatic Machine has been used in this competition.

#### **Expands Equipment Service**

Graphic Arts Equipment Co., 1633 South Clinton St., Chicago, has leased a portion of the Commercial Warehouse at 18th and Canal Sts., to conduct machinery rebuilding operations for printers and lithographers, it was announced last month by Eley Schwarz, owner. Graphic Arts Equipment, established by Miss Schwarz two and one-half years ago, handles equipment and supplies of all kinds for printers and lithographers.

#### **New Register Control**

Photoswitch, Inc., Cambridge, Mass., has just announced the new Photoswitch Inspection and Registration Control Type A80. This is a system for controlling or inspecting cutting and printing operations on cellophane, paper, cloth, tin, metal-foil, etc. It may also be used for detecting presence and absence of

labels on cans and the proper location of labels on goods. The new Type A80 control is said to observe registration marks from penetration of light through transparent and translucent materials, as well as reflection from opaque materials.

#### **Lithographs Outstanding Annual**

One of the really outstanding lithographic jobs produced this year is the "Old McGill" annual just published by McGill University and lithographed by Woodward Press, Montreal, Canada. After using letterpress for the past forty years, school authorities decided to try the offset process for the first time, upon the suggestion of the Woodward company. Almost every one of the 300 pages in the annual contains halftone reproductions and the remarkable high quality of these is convincing proof of the advantages of the offset process for this type of work. Eighty plates were required for the production of the book, and it was lithographed entirely on coated stock on a Mann Press.

#### **New Vari-Typer Face**

Ralph C. Coxhead Corp., New York, has just announced a new display type face for the Vari-Typer known as Alexandria Condensed. The new face is available in 18 point and is said to be particularly suited for display lines in office forms, financial reports, advertising presentations or bulletins.

#### **H-S-P Issues New Calendar**

Harris-Seybold-Potter Co., Cleveland, is distributing a handsome new calendar covering the period from July 1941 through June 1942. The calendar's illustration is a lithographed reproduction in full color of an oil painting by T. M. Cleland depicting rural life. As to both color and finish the paper was especially made for this reproduction. Rogers-Kellogg-Stillson, New York, lithographed the calendar.

#### **Edward R. Carpenter Dies**

Edward R. Carpenter, vice-president of Swigart Paper Co., Chicago, died suddenly of a heart attack in his Chicago home July 16. He was 58 years old.



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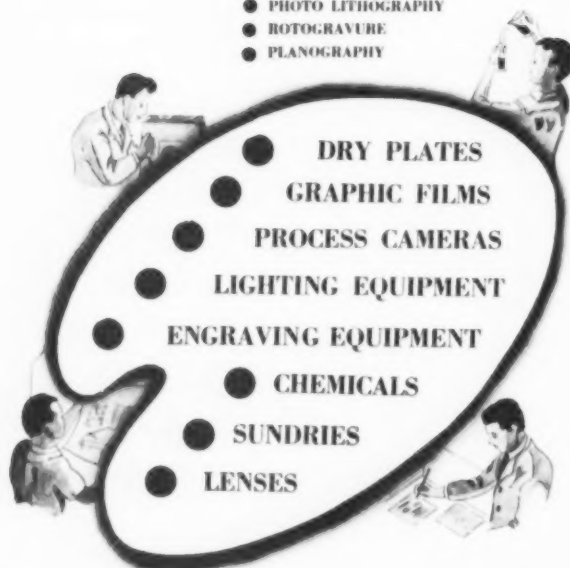
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## To Use More Lithography

(from page 22)

which buyers described were: the fellow with an idea who persists in trying to convince the buyer that the particular idea he has in mind is good despite the fact that the buyer patiently explains that it isn't; the salesman who patiently waits in the reception room until the buyer goes to lunch and then corners him out in the hall; the salesman who arranges for an appointment and shows up with nothing to say and takes a half to three-quarters of an hour in which to say it.

Among the aggressive types described by buyers were the salesman who has made an intelligent study of their problems and presents a tangible workable solution; the salesman, who when his idea is turned down, accepts the verdict without an argument or loss of enthusiasm and shows up the next day with another; the salesman who listens when the faults in his presentation are explained and forthwith revises it in accordance with the suggestions given; the salesman who always has something to give, whether it is just a tip, a hint, a constructive suggestion or an elaborate plan; the salesman who is genuinely and honestly interested in the buyer's business.

In a few paragraphs back we mentioned that the buyers' suggestion that the lithographic industry could improve on its method of making sales involved the answers to two questions. The first, "What do you think of lithographic salesmen?" has been answered with comments from the buyers. The second question was "Do lithographic salesmen now submit speculative sketches to you, and do you approve?"

This second question puts the finger on another reason why buyers believe that the lithographic industry should improve on its method of making sales. Buyers do not approve of the industry's attempting to make sales by submitting speculative sketches. They all said that it was practiced and all condemned it. Nearly all said that they refused speculative sketches when submitted. This method of making sales, according to buyers, is wasteful and is

rarely done with an intelligent appreciation of the buyer's problem. In addition to being costly, wasteful and unintelligent, a few buyers see cheap showmanship in the practice.

"Lithographers who submit speculative sketches have the naive idea that whether the sketch is applicable or not they have made an impression," said one buyer. "This is resorting to cheap showmanship. The average buyer is too sophisticated to be taken in. Instead of impressing him it creates a negative reaction."

"Besides being costly and wasteful," said another, "speculative sketches are a boomerang to the buyer. Everyone knows that the lithographer passes the cost of these sketches along. Some one is going to have to pay for them and it won't be the lithographer."

"We refuse to look at a speculative sketch unless we know first that it is based on intelligent research," another buyer said.

"As a rule the lithographic salesman who submits a speculative sketch does not know the whole story behind the product," one buyer pointed out. "Therefore, the sketch only has to be done over again. That is, if we consider it at all. The general run of lithographic salesmen," he went on, "take a chance with a sketch in order to break in and sell a bill of goods. In our experience salesmen who submit speculative sketches don't know how to sell lithography. They don't know what it's all about."

"The most disliked features about the lithographic industry from the buyer's viewpoint," another comment ran, "is the practice of submitting speculative sketches, and the way mounting and finishing work is sold. The first is wasteful and inefficient and the second is controlled by a monopoly and rigid and unfair prices."

The response to this survey and the cooperation we received in personal interviews with buyers plainly indicate that they are highly interested in lithography and are anxious to work with the lithographer in every possible way. All had high praise for the accomplishments which have been made, but all expect much

more of the process. While not too enthusiastic about the merits of the average lithographic salesman, nearly all agreed that he was a powerhouse in comparison with the average letterpress salesman.

The individual lithographer will, we hope, find in the answers to this survey much that will enable him to see with a clearer eye the buyer's viewpoint. And the entire industry will, we believe, find in the news that fifty buyers representing a cross section of the largest users of lithography in the U. S. plan to increase their purchases during the coming twelve months, something to cheer about.

## Revise Package Competition

*Modern Packaging* magazine, New York, has announced a complete revision in the method of classifying entries for the forthcoming 11th Annual All-America Package Competition. Formerly a package was entered as a bottle, jar, tube, set-up box, etc. Now it will be entered according to the industry in which it is produced and marketed. For example, the entry will be classified as a Bakery Product, Confectionery Product, Meat Product, etc. This change was necessitated by the disappearance of certain package types, the absorption of others and of essential packaging materials by defense industries. Under the new categories packages will be in competition with the same type of merchandising and product competition they find on the market. The judges will take into consideration the price range of the merchandise to avoid pitting a 5-and-10 package against an expensive toiletry. Entries for the competition are now being taken and blanks may be secured from *Modern Packaging*, 122 E. 42nd Street, New York.

## New Munising Survey

Munising Paper Co., has just issued Survey No. 11 in its "Printers and Profits" series describing the uses and characteristics of Caslon Bond. The current issue offers suggestions regarding the use of heavier weights of paper for various jobs. Copies available.

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**PAPER *right!***  
**ROLLERS *right!***

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AND of these three parts into which all lithography is divided, to paraphrase Julius Caesar, ink is the most important. For let the ink be unfitted to the paper, unsuitable for the press, break down on contact with the fountain solution, crystallize, fail to trap, or in a thousand other ways give trouble, and the job can be ruined very readily.

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# LITHOGRAPHIC ABSTRACTS

Abstracts of important current articles, patents, and books, compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstractors or of the Research Department. Mimeographed lists have been prepared of (1) Periodicals Abstracted by the Department of Lithographic Research, and (2) Books of Interest to Lithographers. Either list may be obtained for six cents, or both for ten cents in coin or U. S. stamps. Address the Department of Lithographic Research, University of Cincinnati, Cincinnati, Ohio. Original articles cannot be furnished except as photostatic copies at 20 cents per page.

## Photography and Color Correction

**Let's Look at the Copy.** Walter A. Kaiser. *National Lithographer*, 48, No. 5, May, 1941, pp. 48, 90. A good original is the first step toward a good reproduction. Many clients are quite ready to accept advice about the copy they wish reproduced. A small amount of ochre or umber added to lampblack, or the use of warm colors helps in making better artists' copy. Type proof yields good results under proper conditions. The type, the press, the ink, and the paper all must be considered. Type-written material with a good machine, a fresh ribbon, even touch, and the sheet backed with a fresh sheet of carbon paper, gives a very good copy. The density of photographs for reproduction should not exceed 1.6 and the print should not be on matte or rough paper. The glossy, ferrotyped print is the accepted standard. A reflection-transmission densitometer is needed in determining exposure as the eye is not an accurate judge.

**Photo-Lithography.** A. Haigh and H. M. Cartwright. *Process Engravers' Monthly*, 48, No. 568, April, 1941, p. 120. In hand work on a photograph for reproduction the best pigments to use are "unfixed" ivory black for shadow tints, a mixture of black with Chinese white for middle tones, and a "process" white for highlights. These pigments may

also be used for drawings made especially for reproduction. Carbon prints and hand printed photo-gravure proofs usually make unsatisfactory copy. The production of a moire pattern with engravings, half-tone prints and other originals having a geometric texture may be overcome by using a grained screen, photographing through ground glass, putting the image slightly out of focus, retouching with an air brush to obscure the pattern, or changing the angle of the half-tone screen.

**Method of Measuring Resolving Power of Lens.** (Circular). Anonymous. *Circular C428*, National Bureau of Standards. Developed by the National Bureau of Standards, a method by which expert amateur photographers can determine the resolving power of camera lenses has been made available to the interested readers by the Department of Commerce. Circular C428 outlines the method. Included is a set of accurately engraved test charts which, when used according to instructions, give a measure of the resolving power. A description of a more elaborate apparatus for installation in camera clubs is also included. Copies of Circular C428 may be obtained from the Superintendent of Documents, Washington, D. C., at \$0.40 each. (*Photo Technique*, 3, No. 6, June, 1941, p. 74.)

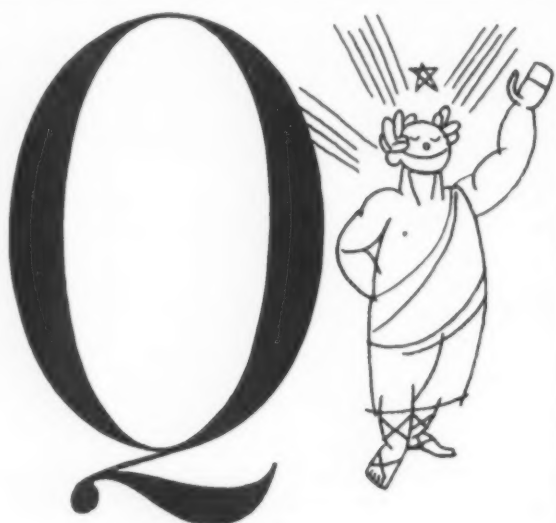
**Halftone Processes.** (Book). A. J. Lockrey. Published by The J. J. Tepper Corp., 30 Rockefeller Plaza, New York, N. Y., 64 pp. \$1.00, 1941. In a revised and enlarged 2nd edition of *Halftone Processes*, the various photomechanical graphic arts processes are explained in simple language, and in terms of ordinary photographic equipment. The table of contents includes: Explanation and Theory of Halftone Reproduction; Making a Halftone Negative; Making a Direct Halftone Positive in the Enlarger; Wet Plate Collodion

Process; Etching Copper and Zinc Plates; Three-and Four-Color Halftones; Collotype; Photo Silk-Screen Processes; Photo-Offset and Lithography; Photogravure and Bromo-Lithography. (*Graphic Arts Monthly*, 13, No. 6, June, 1941, p. 84.)

**Construction Details of the Photoelectric Densitometer.** G. Hartley. *American Photography*, 34: 482-88, July, 1940. A discussion is given of the calibration and operating characteristics of a photoelectric densitometer circuit. (Monthly Abstract Bulletin of Eastman Kodak Company, 27, No. 3, March, 1941, p. 101.)

**Reproduction of Color Film Photographs.** Hans Friedrich. *Druck und Werbekunst*, Feb., 1940, p. 59. Many difficulties must be overcome in making satisfactory plates from direct-color transparencies. The lens problem has been solved by special lenses made by Zeiss: the Apo-Tessar f:12.5 and the Apo-Planar f:10.5. The use of the "Reprocolor" apparatus obviates all mechanical trouble. The film should be carefully examined with a magnifying glass for defects. Register marks should be attached if they are not already there. Dry plates seem to be best, and for direct screen separation negatives, the Autolith panchromatic plate. A table of exposure time is given. (*Share Your Knowledge Review*, 22, No. 7, May, 1941, p. 18.)

**Stop Size and Screen Distance for Halftone Negatives for Block-making.** F. J. Tritton. *Photographic Journal*, 81, May, 1941, pp. 235-244. A description of the penumbral and diffraction methods of obtaining stop size and screen distance for half-tone negative making is given. Deductions from the two theories were tested experimentally and the results seemed to uphold the penumbral theory although diffraction may play some part. A negative made



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with 1/5 of the predetermined exposure for a 1:64 stop, through the 1:45 stop, and 4/5 through the 1:90, is indistinguishable from a negative obtained with a 1:64 stop only. The area of the 1:64 stop is a mean between that of the 1:45 and 1:90 stops. Three tables are given. Table I gives recommended screen distances and Table II recommended stop sizes for the one-stop method. Table III gives recommended stop sizes for the two-stop method.

**Black Printers.** L. L. Perskie. *National Lithographer*, 48, No. 6, June, 1941, pp. 34, 74. Four ways of making the black printer plate in color reproduction are discussed. Photographs were made of specified colored inks and a neutral scale, and the results compared. Photo #1 was an unfiltered panchromatic record. Photo #2 was on a panchromatic plate through the K-3 filter. Photo #3 was photographed on an Infra-Red plate through the #25 (red) filter. Photo #4 was on panchromatic plate through the #32 filter. No one procedure is always best. The correct method depends upon the particular original being reproduced.

**For Photoengravers.** Anonymous. *Photo Technique*, 3, No. 7, July, 1941, p. 70. In making half-tone separation negatives the use of combination filters to avoid masking is not very satisfactory. If continuous-tone negatives are made, a low contrast positive can be made from the red filter negative and bound over the green filter negative, and a low contrast positive from the green filter negative may be bound over the blue filter negative. Positives may be made from these corrected negatives and then half-tone negatives can be made from the positives. The A, B, and C5 filters are right for flat copy and the F, N, and C4 filters may be used for Kodachrome. The angle at which the arc lamps should be placed is discussed.

**How to Make Graded Screens.** Elbert M. Ludlam. *MODERN LITHOGRAPHY*, 9, No. 6, June, 1941, pp. 33-4, 59. The author

describes several ways of making graded screens. Specific directions are given for one method using a standard cross-line screen of 150 lines per inch and photographing through it using three different stops and a series of three exposures. Imperfections in the cross-line screen are minimized by using apertures consisting of batteries of from nine to twenty small openings. Great control is possible and screens may be made to give negatives of any desired contrast.

**William C. Huebner Describes New Half-Tone Screen Control.** W. C. Huebner. *MODERN LITHOGRAPHY*, 9, No. 6, June, 1941, p. 41. Talk before Philadelphia Litho Club. A new method of half-tone screen shifting control whereby the dots are juxtaposed with their centers equally distributed over printing areas, thus avoiding circles of dots with white cores, has been developed by the Huebner Laboratories, New York and will soon be commercially available. A new photographic procedure and the new Photo-text-type Camera are also mentioned.

### Planographic Printing Surfaces and Plate Preparation

**Offset Platemaking.** Don Nicholson. *MODERN LITHOGRAPHY*, 9, No. 5, May, 1941, pp. 42-3. The method of making zinc deep-etch plates is described in detail.

**Lithograph Plate Preparation.** William H. Wood (to The Harris-Seybold-Potter Company). *U. S. Patent* No. 2,240,732 (May 6, 1941). In the preparation of lithographic plates, promoting the moisture-retaining capacity of a plate which is predominantly of aluminum by including a small amount of manganese in the plate.

**Offset Platemaking.** I. H. Sayre. *MODERN LITHOGRAPHY*, 9, No. 6, June, 1941, pp. 37-8, 41. Scumming is probably one of the commonest and most annoying of the troubles encountered by the lithographer.

Thirty-four factors which may be the cause of scumming are described.

### Equipment and Materials

**New England's Synthetic Litho Plate.** John Stark. *Lithographers' Journal*, 26, No. 3, June, 1941, p. 129. A new synthetic planographic plate called "Lithomat" has been developed by the Lithomat Corporation of Boston. The plate has a true lithographic surface coated onto a cardboard and has the advantage over metal plates in that it does not oxidize. This new plate may help to relieve the shortage in metal plates due to national defense needs.

### Paper and Ink

**The Effect of Drying on Quality.** Frederick C. Stamm. *Paper Trade Journal*, 113, No. 1, July 3, 1941, pp. 21-3. The possibility of the elimination of curl and cockle, and the increase of drying rates in paper making are discussed.

**Knowns and Unknowns in Coating Colors.** B. W. Rowland. *Paper Trade Journal*, 112, No. 26, June 26, 1941, pp. 75-7. Some of the factors, such as raw stock, clay, and starch, affecting coating are discussed.

**The Drying of Lithographic Inks.** W. H. Wood. *Harris Impressions*, 1, No. 4, April, 1941, p. 3. The drying of lithographic inks is discussed under the following headings: (1) metallic salts as drying agents, (2) action of metallic salts, (3) other means of drying inks, (4) combinations of metallic driers, (5) emulsification difficulties, and (6) correct paper moisture.

**Little Encyclopedia for Ink Problems-II.** Anonymous. *Printing Equipment Engineer*, 62, No. 4, June, 1941, pp. 88, 90. Definitions and remedies for the following ink problems are given: (1) not printing sharp, (2) offset, (3) picking, (4) pickoff, (5) piling, (6) rubbing, on dull coated paper and board, (7) smudging, (8) sticking, (9) trapping, (10) bleeding or strike-through, (11) press speed retarded by ink, and (12) plates and forms prematurely worn.



## LaMOTTE pH CONTROL METHODS IN THE PLATE AND PRESS ROOMS



LaMOTTE BLOCK COMPARATOR

This compact unit for determining pH of solutions is complete with pH color standards—indicator solutions—marked test tubes and instruction booklet.

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BLOCKS OUT  
WITH A  
SINGLE STROKE

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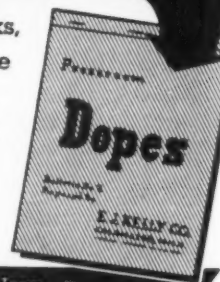
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**PHILLIPS**  
COLOR LABORATORY . . Peoria, Ill.

## General

### Causes and Cures for Offsetting.

R. Randolph Karch. *Graphic Arts Monthly*, 13, No. 5, May, 1941, pp. 18, 20, 74. Causes and remedies for offsetting involving the following factors are given: (1) atmospheric conditions, (2) faulty delivery, (3) doping, (4) excessive ink, (5) faulty distribution of ink, (6) forms, (7) handling stock, (8) faulty make-ready, (9) non-uniform stock, (10) rollers, (11) seasoning paper, (12) spray guns, (13) static electricity, and (14) use of the wrong ink.

**pH Control.** Oscar Diehl. *Lithographers' Journal*, 26, No. 3, June, 1941, p. 103. pH control is simply "proper handling" instead of "pure hooley" as some pressmen term it. The variance in water supply from place to place and from one time to another due to weather conditions, is enough reason to make pH control desirable. Even with pH control, however, experience is necessary in adjusting the fountain solution because not all jobs can be run at the same acidity. The stock, the type of ink, and the amount of ink consumed all must be considered in selecting the proper pH value for the fountain solution.

**The Value of pH Control.** A. C. Austin. *National Lithographer*, 48, No. 6, June, 1941, pp. 37, 77. pH control of the fountain solution is something which every pressman should know about and practice. Of the eight factors listed which affect the success of offset printing, the following three are the business of the pressman: (1) repeated etching and gumming on the press, (2) excessive moisture, and (3) too much or too little acid in the fountain solution. The last may be taken care of by pH control, which can be easily handled colorimetrically without a knowledge of what pH is. Several references are given for those who wish to obtain a more thorough understanding of the meaning of pH.

**Printing Plates Research.** Anonymous. *Industrial and Engineering Chemistry*, News Edition, 19, No. 6, March

25, 1941, p. 373. Printing Plates Research, Inc., has launched a three-year program of research to be conducted in the laboratories of Battelle Memorial Institute at Columbus, Ohio, and directed toward the development of new and improved products and operating methods for use in the printing-plates trades and industries. This new organization is a non-profit corporation, formed to conduct research and other scientific and experimental work for the mutual benefit of its members in the printing-plates trades and industries. The present membership includes eleven electrotypes and stereotype foundries located in cities throughout the East and Mid-west. The research program will be under the direction of Bruce W. Gonser and R. M. Schraffert.

**National Defense and Photomechanics.** J. S. Mertle. *Graphic Arts Monthly*, 13, No. 6, June, 1941, pp. 44, 46, 48, and 50. Due to the defense program here and actual warfare in Europe, Asia, and Africa, increasing difficulty may be encountered in obtaining some of the supplies necessary in photomechanical processes. Potassium salts, hydroquinone, albumin, gum arabic, shellac, metals, acids, and solvents are discussed in relation to the available supply and the likelihood of shortage.

**Problem.** Adam Henri Reiser. *Printing Equipment Engineer*, 62, No. 4, June, 1941, pp. 37, 102. The problem in letterpress, gravure, and offset lithography is to maintain similarity to the OK sheet over the entire press run. Each type of printing encounters different difficulties due to the different types of surfaces. In gravure the doctor blade may cause trouble; in letterpress one must have properly set ink rollers and correct makeready, while color printing brings other troubles; and in offset lithography an entirely different set of problems is encountered due to the planographic nature of the plate. The troubles involved in graining and plate coating, and those due to fountain solution or incorrect ink are mentioned.

### U. S. P. Employees Hold Outing

U. S. Printing and Lithographing Co., Cincinnati, held its second family outing of the season on July 26 at Coney Island, near Cincinnati. The program was planned by Superintendent Robert E. Thiele. Many employees took advantage of the opportunity to make the Ohio River trip in the popular Island Queen, while others came by motor car. On June 21 U. S. Printing & Litho held an employees outing at Bass Island. Both gatherings brought out over 300 persons.

### Offset Clinic at St. Paul

Some 150 lithographers from Minneapolis, St. Paul, Duluth and other Minnesota cities, together with a delegation of ten from Winnipeg, Manitoba, participated in an offset clinic at a conference of the 14th district, International Club of Printing House Craftsmen, held at Minneapolis, June 14. Herman J. Schultz, Chicago lithographer and manufacturer of lithographic chemicals, served as chairman of the question and answer forum. The new Harris-Seybold-Potter motion picture on Offset Lithography was shown at the meeting. The picture, which was filmed in the plant of the Peoria Blue Print Co., Peoria, Ill., shows steps in offset platemaking and operation of Harris offset presses. Guy Martin, manager, and J. L. Bluemer, assistant manager of H-S-P's Chicago sales office presented the picture.

### Sanger Secretary of Typographic

Harold E. Sanger, director of the Chicago School of Printing and Lithography, was elected secretary of the Chicago Society of Typographic Arts at the recent annual meeting. Charles Nixon of Bradner-Smith & Co., was re-elected president and other officers chosen included R. Hunter Middleton of Ludlow Typograph Co., 1st vice-president; George McVicker, free lance artist, 2nd vice-president; Wm. Kapche, commercial photographer, treasurer.

Stevenson Photo Color Separation Co., Cincinnati, has moved to 400 Pike St., from 222 W. Fourth St.

## "WHERE-TO-BUY-IT"

NOTE: This is a classified list of the companies which advertise regularly in MODERN LITHOGRAPHY. It will aid you in locating advertisements of equipment, materials or services in which you are particularly interested. Refer to the Advertiser's Index on page 65 for page numbers. *Say you saw it in Modern Lithography.*

### Chemicals

Agfa Ansco  
California Ink Co., Inc.  
Coleman & Bell Co.  
Eastman Kodak Co.  
Harris-Seybold-Potter Co.  
LaMotte Chemical Products Co.  
Litho Chemical & Supply Co.  
Mallinckrodt Chemical Works  
Merck & Co., Inc.  
Norman-Willets Co.  
Harold M. Pitman Co.  
Senefelder Co., Inc.  
J. H. & G. B. Siebold, Inc.  
Sinclair and Valentine Co.  
John Stark Laboratories

### Graining and Regraining

(Zinc, Aluminum, Glass and Multilith Plates)  
Dixie Plate Graining Co.  
Fuchs & Lang Mfg. Co., Div. General Printing Corp.  
International Printing Ink, Div. of Interchemical Corp.  
Litho Plate Grainers of Detroit  
Litho Plate Graining Co. of America, Inc.  
Offset Fine Arts, Inc.  
Photo Litho Plate Graining Co.  
Reliable Litho Plate Graining Co.  
The Senefelder Co., Inc.  
Texas Offset Supply Co.  
Western Litho Plate & Supply Co.

### Graining and Regraining Materials

International Printing Ink, Div. of Interchemical Corp.  
The Senefelder Co., Inc.  
J. H. & G. B. Siebold, Inc.

### Inks—(Varnishes and Dryers)

Bensing Bros. & Deeney  
California Ink Co., Inc.  
Crescent Ink & Color Co. of Penna.  
Martin Driscoll & Co.  
Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp.  
Gaetjens, Berger & Wirth, Inc.  
International Printing Ink, Div. of Interchemical Corp.  
E. J. Kelly Ink Co.  
The Senefelder Co., Inc.  
J. H. & G. B. Siebold, Inc.  
Sinclair & Carroll Co.  
Sinclair and Valentine Co.

### Miscellaneous

Russell Ernest Baum (Folding Machinery)  
Ralph C. Coxhead Corp. (Composing Machines)  
Ben Day, Inc. (Shading Medium)  
International Business Machines Corp. (Typewriters)  
Johnson Stop and Indicator Co. (Drop-Out Method)  
Phillips Color Laboratory (Color Separation Services)  
U. S. Finishing & Mfg. Co. (Mounting and Finishing)

### Paper

American Writing Paper Corp.  
Champion Paper and Fibre Co.  
Chillicothe Paper Co.  
Fox River Paper Corp.  
Hammermill Paper Co.  
The Mead Corp.  
Neenah Paper Co.

### Paper—Continued

The Sorg Paper Co.  
Strathmore Paper Co.  
S. D. Warren Co.  
West Virginia Pulp & Paper Co.  
George A. Whiting Paper Co.

### Photo Dry Plates and Films

Agfa Ansco  
California Ink Co., Inc.  
G. Cramer Dry Plate Co. (Photo Dry Plates)  
Eastman Kodak Co.  
Hammer Dry Plate & Film Co.  
Norman-Willets Co.  
Harold M. Pitman Co.

### Plate Making Equipment & Supplies

Aluminum Co. of America (Aluminum Plates)  
American Type Founders Sales Corp. (Cameras, Whirlers, Vacuum Frames, etc.)  
Artists Supply Co. (Opagues)  
California Ink Co., Inc. (Zinc and Aluminum Plates)  
Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp. (Zinc and Aluminum Plates)  
C. P. Goerz American Optical Co. (Lenses)  
Craftint Mfg. Co., The (Opagues and Masking Ink)  
Illinois Zinc Co. (Zinc Plates)  
International Printing Ink, Div. of Interchemical Corp. (Aluminum and Zinc Plates)  
Kellogg Division, American Brake Shoe & Foundry Co. (Tray Coolers)  
Knop & Brauer, Inc. (Plate Making Services)  
Lanston Monotype Machine Co. (Cameras, Photo-Composing Machines, etc.)  
LaMotte Chemical Products Co. (pH Control Apparatus)  
Modern Litho Print Co. (Plate Making Services)  
National Carbon Co., Inc. (Carbons)  
Norman-Willets Co. (Cameras, Lenses, etc.)  
Harold M. Pitman Co. (Cameras, Vacuum Frames, Whirlers, etc.)  
Rutherford Machinery Co., Div. General Printing Ink Corp. (Cameras, Photo-Composing Machines)  
The Senefelder Co., Inc. (Aluminum Plates, Litho Stones, etc.)

### Pressroom Equipment & Supplies

American Type Founders Sales Corp. (Presses—Offset Spray Gun, etc.)  
Sam'l Bingham's Son Mfg. Co. (Rollers)  
The Christensen Machine Co. (Bronzers)  
Fuchs & Lang Mfg. Co., Div. General Printing Ink Corp. (Flannel)  
Godfrey Roller Co. (Dampening Rollers)  
Harris-Seybold-Potter Co. (Presses)  
Ideal Roller & Mfg. Co. (Rollers)  
International Press Cleaners & Mfg. Co. (Press Cleaner)  
International Printing Ink, Div. of Interchemical Corp. (Flannel, Molleton, etc.)  
Kimble Electric Co. (Motors)  
LaMotte Chemical Products Co. (pH Control Apparatus)  
Rapid Roller Co. (Rollers and Blankets)  
The Rathbun & Bird Co., Inc. (Machinists)  
Roberts & Porter, Inc. (Rollers and Blankets)  
Rutherford Machinery Co., Div. General Printing Ink Corp. (Proof and Test Presses)  
The Senefelder Co., Inc. (Blankets, Molleton, etc.)  
J. H. & G. B. Siebold, Inc. (Rollers, Blankets and Molleton)  
Sinclair and Valentine Co. (Blankets)  
W. A. Taylor & Co., Inc. (pH Control for Fountain Solutions)  
Vulcan Proofing Co. (Rollers and Blankets)



## CLASSIFIED

All classified advertisements will be charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment, where the rate is five cents per word, \$1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of Modern Lithography, 254 W. 31st St., New York. **Closing date: 1st of month.**

### General Information Concerning Inventions and Patents:

A reference book for inventors and manufacturers, also containing sections on the registration of trademarks and copyrights, and a "Schedule of Government and Attorneys' Fees"—sent free on request. Simply ask for "booklet" and "fee schedule." Lancaster, Allwine & Rommell, Registered, Patent and Trade-Mark Attorneys, 402 Bowen Building, Washington, D. C.

### Junior Executive-Secretary

Young man, 28, desires connection with ranking lithographic concern as secretary-assistant to busy sales or production executive. Loyal, sales-minded, analytically inclined. No stranger to responsibility. Salary in ratio to responsibility. Employed at present. Address Box #710.

### For Sale:

Multilith 1200, excellent condition, \$800 cash. Burr Printing Company, Norwich, N. Y.

### Help Wanted:

Offset Pressman. Must be member I. P. P. A. U., West Coast. State experience fully. Address Box #711.

### For Sale:

Power transfer press with Century polyphase induction motor, size of bed 29½" x 36". Address Box #709.

### Position Wanted:

Lithographer foreman—extensive thorough experience greeting cards, especially on Multilith. Good or-

ganizer and producer, stripping, plate making—both albumin and deep-etch—also retouching and dot etching. Desires to change. Will locate anywhere for right opportunity with future. Address Box #708.

### Wanted:

A good used Zeiss Apo-Tessar process lens, 18" or 24" focal length. State price and condition of lens. Address Box #707.

### Help Wanted:

Harris offset Pressman and Plate-maker, experienced on color. Preferably post card experience. State experience and wage desired. The Dexter Press, Pearl River, N. Y.

### Extending the Market, etc.

(from page 29)

keeping and other magazines of the general consumer type.

The large amount of material obtained from this source can be used as the basis of a talk by someone in your own organization or it can be used for an open and general discussion.

### 12th Meeting

This is your own meeting for a discussion and resume of the eleven preceding meetings.

**Y**ES, more and more recipe books will be published by the lithographic process as time goes on. But the lithographic industry as a whole deserves little thanks that this has come about. One concern, realizing the possibilities, took a chance. The rest of the industry profited. This was a stroke of good fortune. The thanks are due to the individual pioneering of one lithographing concern. It has admirably demonstrated that the type of work that formerly went almost exclusively to the letterpress industry can be produced by the lithographic industry as well, if not better. In doing so it capitalized on the very advantages that letterpress up to that time felt belonged solely to it.

Wouldn't it be wise for the industry at large to profit by this concern's example and go after more of the same type of so-called "letterpress job"? Recipe books comprise only a small percentage of the field. There are many others too numerous to mention. Lithography can do anything letterpress can if lithography's present weaknesses are discovered and eliminated. We have said what, in the opinion of most buyers, they are. We have outlined a plan for overcoming them. The rest is, of course, up to the industry.

### Magill V. P. Honored

Gene Pfister, vice-president and member of the Board of Magill-Weinsheimer Co., Chicago, was elected second vice-president and Chief Rosarian of the Men's Garden Clubs of America at the organization's national convention in Syracuse, N. Y., recently. When not selling lithography, Mr. Pfister's spare time is devoted to raising roses or lecturing about them. The rose garden at his Highland Park home is a well known show place among amateur gardeners in Chicago's north shore suburban district.

### Exhibits Wide Range of Displays

Timely Service, New York City, exhibited a varied line of display materials suitable for a wide range of retail merchandising purposes at the recent convention of the International Display Men's Association in Chicago. Included were posters, window streamers, store banners, card toppers, counter and floor cards and other promotional material. Many were lithographed by Consolidated Litho Co. of New York. Others were produced in the company's own studios by the silk screen process and the photo-gelatin process.

### Watervliet's New Offset Paper

Watervliet Paper Co., Watervliet, Mich., has just issued a folder containing a specimen booklet lithographed on its new Cascade Offset paper. The company is also distributing a sample book containing specimens of the new paper in various weights and finishes. Copies available.

**It's Easy To Make  
Money  
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Compose copy for bulletins, sales manuals, booklets, catalogs, folders, etc. on the composing Type Writer . . . with changeable faces and spaces. Any competent typist after proper instruction can Vari-Type your work to photo offset copy with large savings and improved appearance.



Write Today for new specimen portfolio "How to Make Money with Vari-Typer" . . . with actual samples issued by organizations in the lithographic field.

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Manufacturers of Vari-Typer  
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1891 OUR FIFTIETH ANNIVERSARY 1941

**We Cover the West Coast**

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EQUIPMENT  
FILMS AND CHEMICALS**

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**THE CALIFORNIA INK CO., Inc.**  
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SALT LAKE CITY SHANGHAI, CHINA

*For every* **OFFSET** *Requirement*



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for full information and samples.*

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MENASHA, WISCONSIN

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FOLDERS IN AMERICA*

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*FOLDING MACHINE VALUES*

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Advertising . .**

Brings excellent results at a minimum cost. Rates are only 10c per word with a minimum charge of \$2.00 per issue, except those of individuals seeking employment, where the rate is five cents per word, \$1.00 minimum. Whether you have some surplus equipment or material for sale, have a position open or are looking for a new connection, etc., use space in the Classified Section of Modern Lithography. It will place you in touch with the entire lithographic industry.



### Elect Sheldon Hoyt

Sheldon Hoyt, Western Lithograph Co., Los Angeles, was elected president of the Junior Advertising Club of Los Angeles at a meeting held last month.

### U. S. Printing Names Buescher

Edward A. Buescher has become manager of marketing service for U. S. Printing and Lithograph Co., Cincinnati, succeeding Christopher W. Browne, now editor of *Modern Packaging*.

### Chicago Bowlers Organizing

Two Chicago ink houses, Martin Driscoll & Co., and McCutcheon Bros. & Quality, Inc., will have bowling teams in the 1941-42 Chicago Craftsmen's Bowling League now being organized. Twenty teams have enrolled for the tournament which opens September 4 and continues until next April. George Warmbold, Chicago manager for Sinclair & Valentine Co., who served as president of the League for two seasons, declined re-election at the last annual meeting so Louis Plough of Harvester Press was chosen to pilot the League this year.

### George B. Wing Dies

George Bowen Wing, 79, former secretary-treasurer and director of the Dexter Folder Co., New York, died last month after a brief illness. He had been connected with the company since 1905 and retired last year.

### Hignell Printing Moves

Hignell Printing Limited, printing and lithographing concern, formerly located at 304 Nakomis Building, Winnipeg, Canada, moved last month to larger quarters at 488 Burnell Street.

### Merck Jr. Wins Honor

George Wall Merck, Jr., 23-year-old son of George W. Merck, president of Merck & Co., Rahway, N. J., who is in training at the United States Naval Station, San Diego, Calif., has been selected as the honor man of his company at that station. This title is awarded to the recruit who performs outstanding work.

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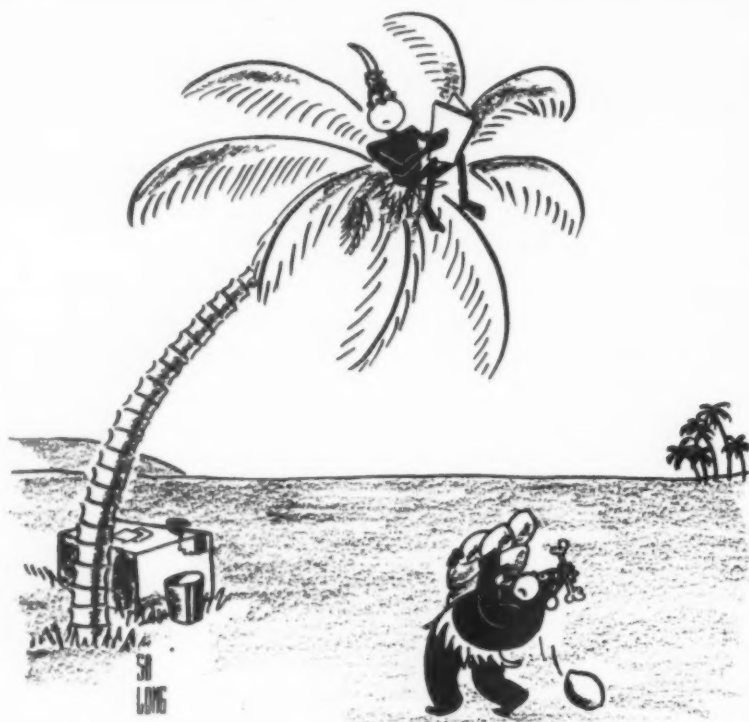
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"That reminds me Cuthbert,—if anybody phones, tell them I am in conference."

*... that reminds me!*

**P**EOPLE are prone to forget, and very quickly too, if they are not constantly reminded about your company and its products. No matter how good business is or how well-known your goods are today, the price of keeping them well-known is to keep your name everlastingly before your customers. What better way can there be than regular trade paper advertising?

In the fields of lithographic materials and equipment they will never get a chance to forget you if you advertise regularly in

## MODERN LITHOGRAPHY

254 West 31st Street

New York, N. Y.

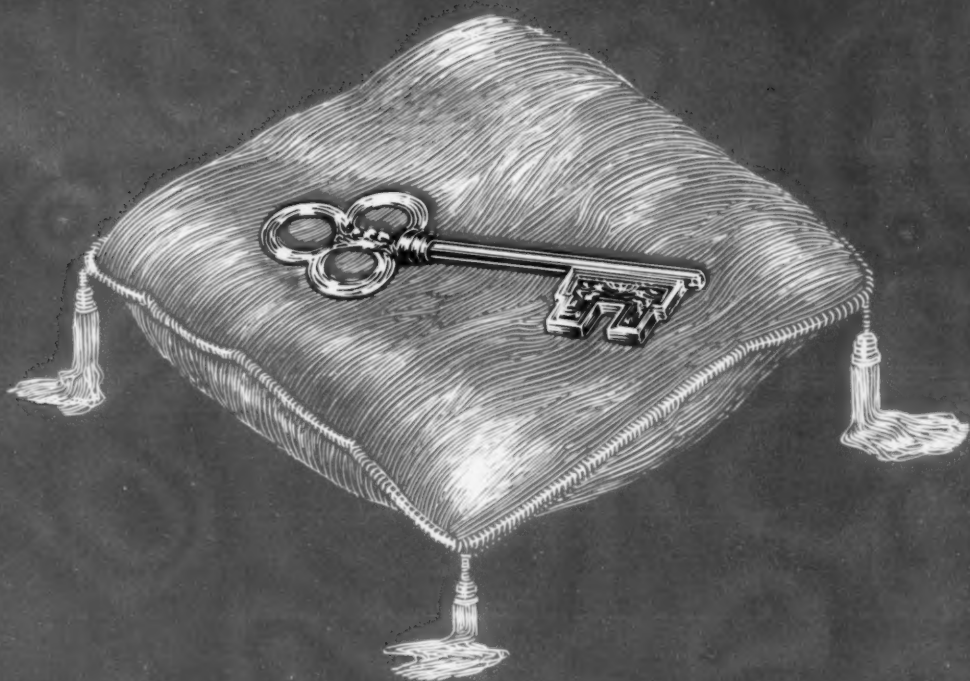
## Tale Ends

**O**NE of our correspondents sent us a little piece last month about a dealer who specializes in the sale of offset equipment "introducing" the proprietor of a restaurant to the "possibilities of lithography as medium for printing his menus." That was swell—up to that point. But the dealer went the whole hog and sold the restaurant keeper an offset press! This restaurant owner, our correspondent went on to point out, had been dissatisfied with the "artistic qualities" of his menus for a long time. Now he's completely satisfied because of the offset press and is producing his menus at "quite a saving." In addition, all his other printing jobs, cashier's forms, requisition slips, waiter's order blanks, checks, etc., are being produced on his own press.

We don't like to carp—if a man has a chance to sell a press it's hard to put down the temptation—but it seems to us that this sale was extremely short-sighted. How does he expect to sell both lithographers and lithographers' customers offset presses? This restaurant keeper in the long run won't turn out to be a good or profitable customer, we'll bet. He'll be as full of complaints as a rooster with the pip. Wouldn't it have been more foresighted for the dealer to have informed one of his old lithographer-customers of this restaurant owner's problem and suggested he send one of his salesmen around? We suggested to our correspondent that he give the dealer a copy of a little booklet called "The Private Printing Plant," which is being printed and distributed by Peterson Lithograph & Printing Co., Omaha, Nebraska. In fact, it wouldn't be a bad idea for everyone in the industry to have a copy.

You can give yourself a pretty fair education in the art of lithography by reading MODERN LITHOGRAPHY every month, and by providing yourself with a copy of the Lithographer's Manual. You can get both at a combination price which is very attractive.

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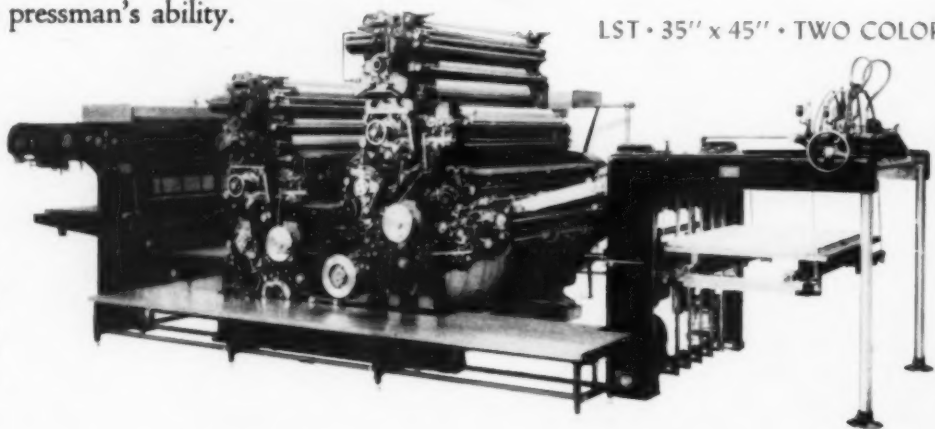
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